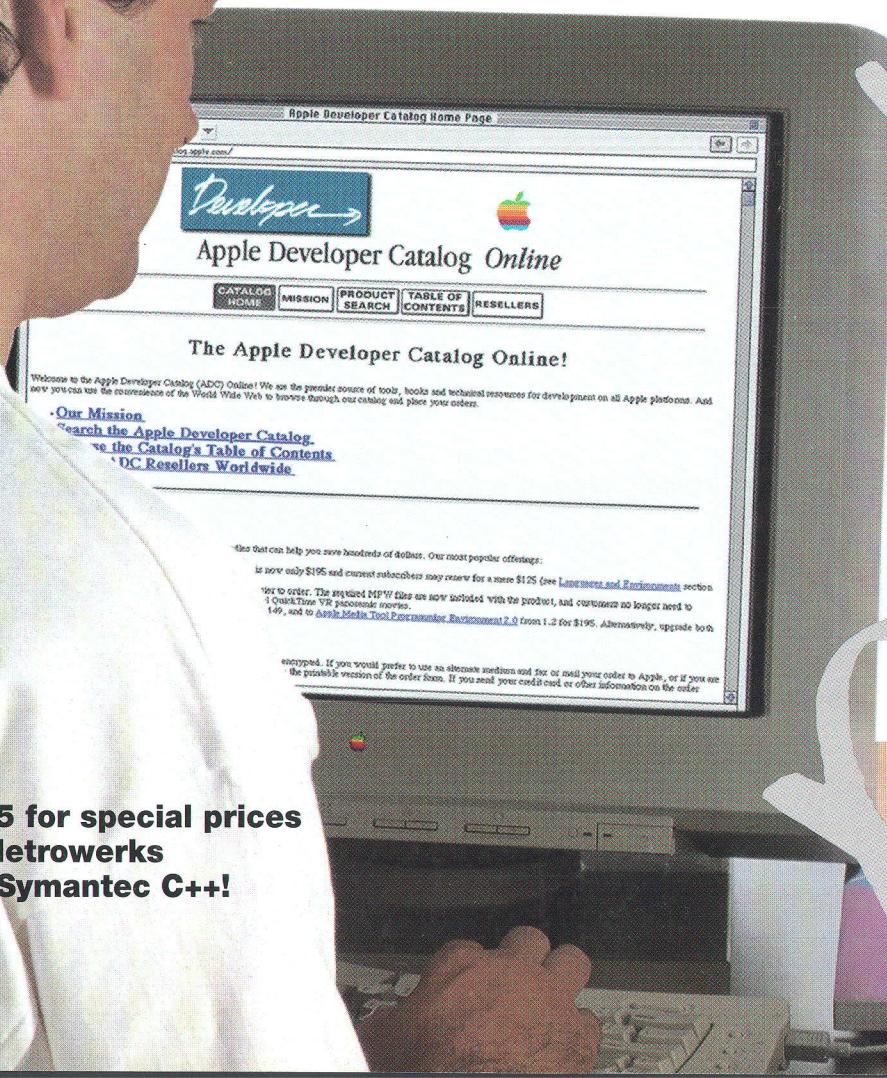
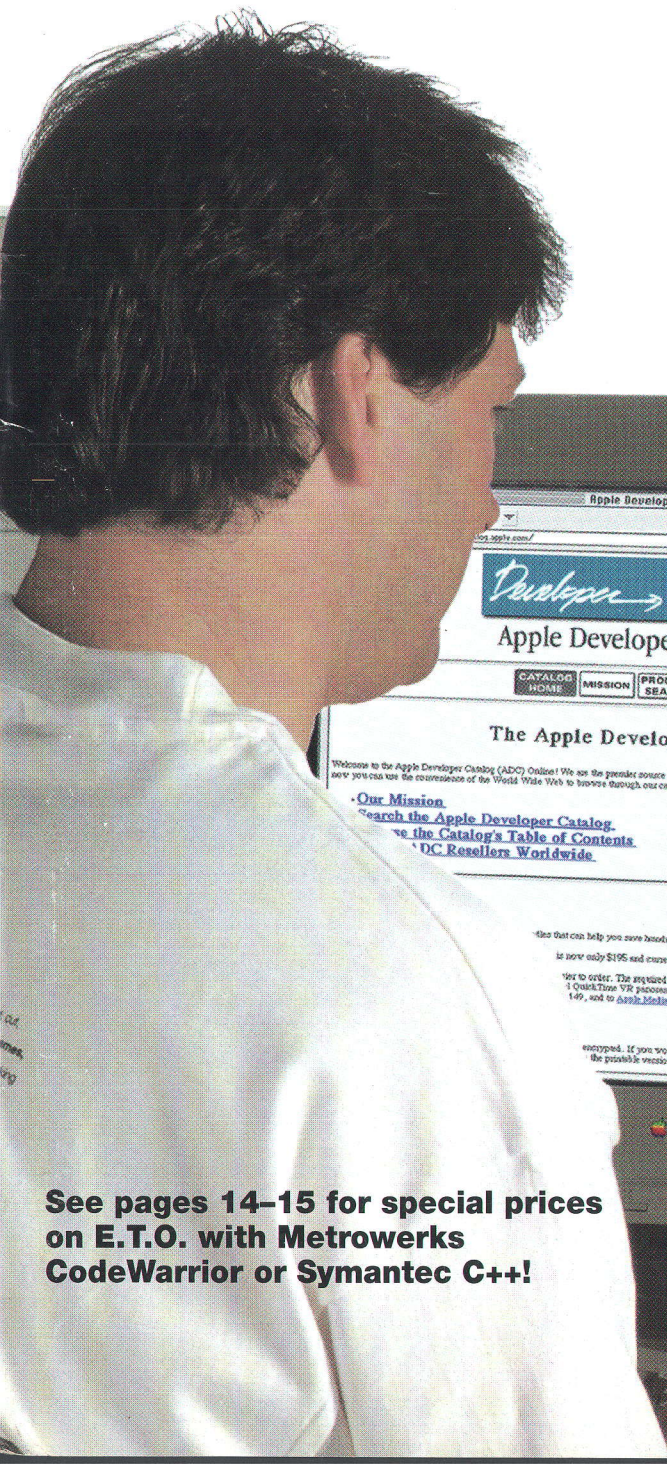


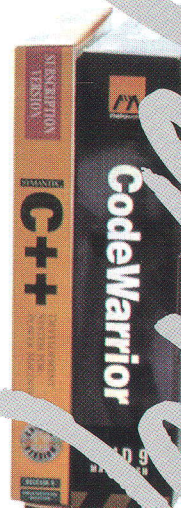
August 1996



# Apple Developer Catalog



See pages 14-15 for special prices  
on E.T.O. with Metrowerks  
CodeWarrior or Symantec C++!



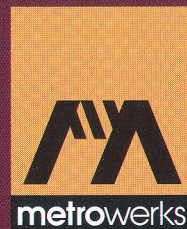




*m u l t i p l e   p l a t f o r m s ,   f o*

***environment***

**CodeWarrior®**



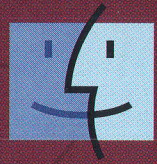


ur languages, one environment

LANGUAGES

4

C C++  
object pascal  
java™



Mac™ OS



Windows  
95/NT

PROCESSORS

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68K, powerPC™, x86, MIPS®

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# QuickTime VR A

The authoring tool that can turn 68 m

Apple Computer, Inc.

## What is QuickTime VR?



The award-winning QuickTime VR is a revolutionary cross-platform software from Apple which enables Web page designers and professional developers to create exciting new multimedia products and Web pages incorporating QuickTime VR content. With QuickTime VR, users interactively navigate through 360° views of space, and explore three dimensional objects on Macintosh or Windows-based personal computers.

## The QuickTime VR Authoring Tools Suite 1.0

The QuickTime VR Authoring Tools Suite is a set of Macintosh tools to create and link panoramas and objects from photographic, digital, video, or computer generated images.

Included is a complete set of documentation for planning, designing, photographing, and creating QuickTime VR panoramas and objects. The authoring tools also allow you to link objects to panoramas using clickable hot spots.

Included on the CDs are:

- A software tool (MPW-based) that stitches and blends adjacent images into a panoramic PICT file
- A software tool (MPW-based) that dices and compresses panoramic PICT files to less than 100 KB (low resolution) per panorama
- A scene editor (HyperCard-based) to create QuickTime VR scenes by adding and positioning nodes, hot spots, linking nodes together, and for linking QuickTime VR objects to scenes
- A variety of utility tools for formatting the data into the runtime software
- A video called *Photographing QuickTime VR*

## Advantages for Developers

### Performance

Due to a revolutionary distortion-correcting algorithm, QuickTime VR panoramas and objects maintain a normal perspective when the user moves the mouse. The speed of the algorithm allows up to 24-bit color images. Both vertical and horizontal panning can occur at fast speeds.

### Accessibility/Cross Platform Playback

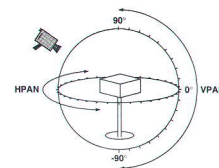
QuickTime VR runs on low-end Macintosh and Windows-based computers.

### Small File Sizes

A high resolution 360° view of a panorama requires less than 540 KB.

### Interactivity

QuickTime VR enables hot spots so any part of a 360° panorama can be active. A wide variety of actions can be triggered—"picking up" a QTVR object, playing a video or audio clip, displaying a photograph or text, or another QuickTime VR panorama.



### Requirements

Power Macintosh, Macintosh or Mac OS-compatible computer with a 33 MHz 68040 or greater processor; FPU required for non-PowerPC processors; 40 MB RAM; 10 MB hard disk space; System 7.1 or later (System 7.1.2 required for PowerPC processors); MPW Pro (included), HyperCard 2.2 or later; QuickTime 2.0 or later; ResEdit 2.1.1 or later; CD-ROM drive; 832 x 624 resolution monitor; 16-bit video; thousands of colors required for the screen editor.

### Minimum Macintosh system required for the runtime software playback

- QuickTime-capable Macintosh with a 25 MHz 68030 or greater processor and 8 MB RAM
- QuickTime 2.0
- System 7.1 or later
- Monitor with 8-bit video (16-bit preferred)
- Double-speed drive required for CD-ROM playback

### Minimum Windows system required for the runtime software playback

- QuickTime 2.0 for Windows
- Windows 3.1
- MPC 2 configuration
  - 33 MHz 80386 processor
  - 8-bit video (16-bit video preferred)
  - 8 MB RAM
- Double-speed drive required for CD-ROM playback

QuickTime VR will support 8-, 16-, and 24-bit video.



# Authoring Tools Suite 1.0

million personal computers into virtual reality theaters.

**GET v.2.0 FREE!**

Buy QuickTime VR  
Authoring Tools Suite 1.0  
today and receive v.2.0  
FREE when shipped later  
this year!

## Try This!

### Building QuickTime VR Objects

In minutes, you can build your own QTVR objects that can be posted on the World Wide Web.

Here is what you'll need: an object to photograph, a lazy-susan turntable or an object rig, a camera connected to a computer to capture images (e.g. QuickTake, QuickCam, or video camera connected to a digitizer card), ConvertToMovie 1.6 (available at <http://www.QuickTimeFAQ.org/>), and Make QTVR Object v1.0b3 (available at <http://qtvr.quicktime.apple.com/>)

**Step 1: Setup** Visualize the face of a clock and mark 12 positions on the turntable (30 degrees apart). Center the object on the turntable and position the camera so that the object stays in the frame as it spins around.

**Step 2: Capture images** Take 12 shots as you rotate the object in increments of 30 degrees in a clockwise rotation. An object rig, such as the Kaidan Magellan Object Rigs featured on page 7, simplifies positioning of the object and is quite helpful for making object movies.

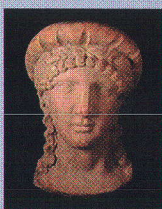
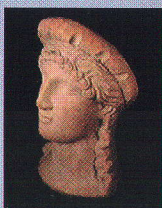
**Step 3: Convert to Movie** Use ConvertToMovie 1.6 to combine the 12 images into a 12 frame QuickTime Movie. ConvertToMovie expects the set of images to be in a single folder and numbered sequentially one through 12. Use Cinepak compression at 50%, 12 frames per second, keyframe every 1 frame, and disable the data rate limit. If you want to further minimize the size of the file, you can crop and reduce the movie to a desired size. Terran Interactive's MovieCleaner Pro, on page 11, is a good tool for this task.

**Step 4: Convert to QTVR Object** Use Make QTVR Object to convert your QTVR Object movie. Open the movie with the utility and select "Add Object Data...". Change the number of columns to 12. The other values should remain 0 rows, 0 loop size, 0 loop ticks, 0/360 start/end HPAN, and 0/0 start/end VPAN. Click OK and you now have a QTVR Object.

To try variations, and make your movies cross-platform, follow the instructions in the Read Me. You might want to increase the original number of images to 36 to make a smoother QTVR Object. Replace the turntable with a swivel chair and make a QTVR object of yourself.

If you want to learn more about QTVR, join the QTVR mailing list at <http://www.solutions.apple.com/ListAdmin/> and read the references listed on the QTVR website at <http://qtvr.quicktime.apple.com/>.

Products that are useful in creating and integrating QTVR objects include the QuickTime VR Authoring Tools Suite 1.0 (previous page), the Kaidan Magellan Object Rig (pages 6 and 7), Terran Interactive Movie Cleaner Pro 1.2 (page 11), Equilibrium DeBabelizer Toolbox 1.6.5 (page 11), the QuickTime Developers Kit 2.0 (page 8), Apple Media Tool 2.0 (page 12), HyperCard 2.3 (page 31), Allegiant SuperCard 2.5 (pages 8 and 30), and Macromedia Director 5.0 (page 10) included in Director Multimedia Studio 2.



#### QuickTime VR Authoring Tools Suite 1.0

R0629Z/D (NTSC Version) **\$495.00**

R0637Z/D (PAL Version) **\$495.00**

#### Note

The required MPW software is now included in the QuickTime VR Authoring Tools Suite for no additional charge.

#### Photographing QuickTime VR Scenes Video

R0629Z/D (NTSC Version) **\$29.95**

R0637Z/D (PAL Version) **\$29.95**

## A W A R D S

#### March 1996

- Software Publishers Association, 1996 "Codies"; Excellence in Software Awards—Best Programming Tool



#### February 1996

- Byte Magazine 1995 Editor's Choice Awards, Award of Distinction for Breakthrough Technology
- Point Survey "Top 5% Best Sites of the Internet", Apple Computer and Asian Art Museum of San Francisco Web site at <http://sfasian.apple.com> (See <http://www.pointcom.com/>)

#### January 1996

- MacWorld 1996 World Class Award Finalist — Best New Technology
- Computer Graphics World, 1995 Editors' Choice Awards, First Place Winner of the CGW's Special Technology Award for Most Innovative Computer Graphics Product
- Seybold 1995 Editors' Choice Award for Excellence


**APPLE HAS**

## WAIVED ROYALTIES

**FOR DISTRIBUTING APPLICATIONS CREATED USING QUICKTIME VR!**

A no-fee license agreement is still required before distributing the QuickTime VR run-time software as a player or in an application.

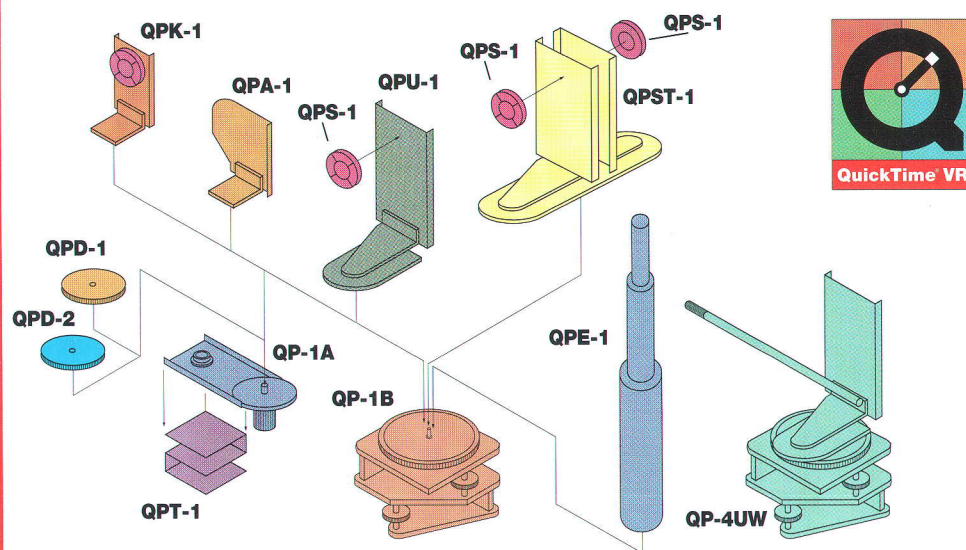
The QuickTime VR Web site, at <http://qtvr.quicktime.apple.com/>, has useful information about QuickTime VR, including sample scenes and objects, a QuickTime VR technology paper, illustrations of how the technology works, developer information, and the QTVR Player to view QuickTime VR scenes on the World Wide Web.





Kaidan

## QuickPan QuickTime VR Panoramic Tripod Heads



The Kaidan family of QuickPan Panoramic Tripod Heads makes it easy to create QuickTime VR movies. The heads attach to any standard photographic tripod and provide a level, indexed swivel mount. The modular design of the QuickPan family makes it easy to add and interchange components. You can purchase bundled systems or components.

The Apple QuickTake (QPA-1) and Kodak DC40 (QPK-1) mounting brackets provide an inexpensive solution that positions the nodal point of each camera in landscape or portrait orientations. No adjustments are necessary.

The QuickPan Universal (QPU-1) mounting

bracket is designed for any camera, including the QuickTake and DC40, and is adjustable in two indexed directions with clamp levers. The QPU-1 also comes with a two-axis bubble level that slides into your camera's flash shoe.

The QuickPan Stereo (QPST-1) mounting bracket is similar to the QPU-1, except it is designed to mount two cameras at the same time, providing a 3D stereo effect for QTVR panorama playback.

The QuickPan Panoramic Base (QP-1A) is designed for the lighter 35mm cameras and digital cameras. It provides a cost-effective solution with

two interchangeable detent wheels, each with five click-stop settings (QPD-1 standard & QPD-2 optional). It includes a precision bubble level, angular readout and a free-rotation locking mechanism. The QP-1A base supports the Adjustable Tilt Head (QPT-1), which provides an easy way to adjust the QuickPan for perfect level with two fingers. The QPST-1 Stereo Bracket and QPE-1 Extension Tube are not recommended for use with the QP-1A base.

The QuickPan Professional Base (QP-1B) is designed for heavier cameras (i.e. Kodak DCS-420) and camcorders (i.e. Sony Digital Handycam). The QP-1B base has an integrated tilt capability, five detent positions and a precision bubble level. The QPST-1 Stereo Bracket and the QPE-1 Extension Tube should only be used with the QP-1B base.

The QuickPan Extension Tube (QPE-1) is telescoping support that fits between any camera bracket and the QP-1B base. Perfect for concerts and outdoor events, the QPE-1 extends to over eight feet in height for those over-the-crowd VR shots.

The Kodak DC40 Spacer (QPS-1), which comes standard on the Kodak DC40 (QPK-1) bracket, is also available separately for use with the Universal (QPU-1) and Stereo (QPST-1) brackets. The spacer is required since the DC40 has an uneven mounting surface.

The QuickPan Pro Underwater model (QP-4UW) is designed expressly for underwater QTVR panoramic photography. Based on the QP-1B base, the QP-4UW is constructed from underwater rated materials and finishes. It also comes with an extension handle and handgrips designed for diving gloves. The QP-4UW can accommodate Nikonos underwater cameras and most plastic camera housings.

### QuickPan Systems (Components available separately)

T1760Z/A	QP-1	QuickPan for the Apple QuickTake 100 & 150	<b>\$199.95</b>	T1858Z/A	QP-3	QuickPan Universal	<b>\$299.95</b>
T1854Z/A	QP-1T	QuickPan for the Apple QuickTake with Tilt	<b>\$279.95</b>	T1857Z/A	QP-3T	QuickPan Universal with Tilt	<b>\$389.95</b>
T1855Z/A	QP-2	QuickPan for the Kodak DC40	<b>\$199.95</b>	T1978Z/A	QP-4	QuickPan Professional	<b>\$589.95</b>
T1856Z/A	QP-2T	QuickPan for the Kodak DC40 with Tilt	<b>\$279.95</b>	T1981Z/A	QP-4UW	QuickPan Pro Underwater (avail. 8/96)	<b>\$789.95</b>

COMING  
SOON  
COMING  
SOON

Systems listed above consist of these components

### QuickPan Components

				QP-1	QP-1T	QP-2	QP-2T	QP-3	QP-3T	QP-4
T1846Z/A	QP-1A	QuickPan Panoramic Base	<b>\$149.95</b>	✓	✓	✓	✓	✓	✓	
T1979Z/A	QP-1B	QuickPan Professional Base	<b>\$429.95</b>							✓
T1850Z/A	QPU-1	QuickPan Universal Bracket	<b>\$179.95</b>					✓	✓	✓
T1848Z/A	QPA-1	Apple QuickTake 100 & 150 Bracket	<b>\$69.95</b>	✓	✓					
T1849Z/A	QPK-1	Kodak DC40 Mounting Bracket	<b>\$69.95</b>			✓	✓			
T1982Z/A	QPST-1	Stereo Mounting Bracket	<b>\$379.95</b>							
T1847Z/A	QPT-1	QuickPan Adjustable Tilt Head	<b>\$89.95</b>		✓		✓		✓	
T1851Z/A	QPD-1	Detent Wheel - 8,12,14,16,18 Position	<b>\$34.95</b>	✓	✓	✓	✓	✓	✓	✓
T1852Z/A	QPD-2	Detent Wheel - 10,15,20,24,36 Position	<b>\$34.95</b>							
T1903Z/A	QPS-1	Kodak DC40 Mounting Spacer	<b>\$18.95</b>							
T1980Z/A	QPE-1	QuickPan Extension Tube (avail. 8/96)	<b>\$249.95</b>							

COMING  
SOON

COMING  
SOON

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SOON

COMING  
SOON

Optional, to be used only with the QP-1B base

Optional, for use with units equipped with a QP-1A base

Optional, for use with Kodak DC40 on QPU-1 and QPST-1 brackets

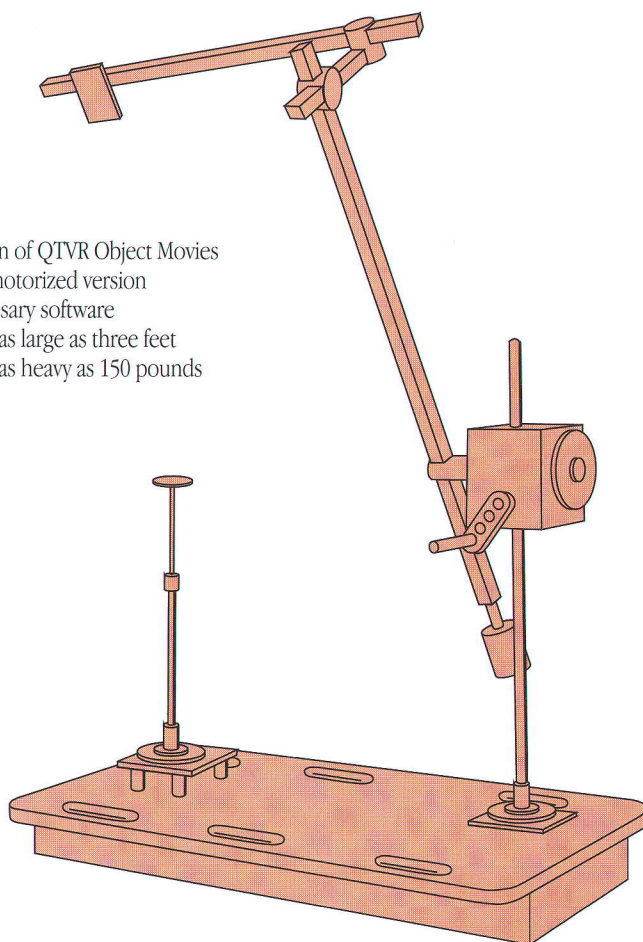
Optional, to be used only with the QP-1B base and any camera bracket

Orders are shipped within 24 hours. **Order Monday through Friday, 7am-5pm, PST.** U.S.: **1-800-282-2732**



Kaidan

## Magellan QuickTime VR Object Rigs



### Features

- Affordable
- Portable
- Facilitates creation of QTVR Object Movies
- Upgradeable to motorized version
- Includes all necessary software
- Supports objects as large as three feet
- Supports objects as heavy as 150 pounds

## Magellan 1000

**COMING  
SOON**

The Magellan 1000 (M-1000) is a mid-sized, manually operated rig capable of handling objects as large as three feet in diameter and 150 pounds in weight.

Sized to fit on a table or desk, the M-1000 employs an adjustable cantilevered arm design with a manually cranked gearbox to position the camera arm, and a click-stop adjustable-height pedestal used to support the object being photographed. The camera arm will accommodate cameras, digital cameras and camcorders (five pound maximum weight, 1/4" or 3/8" tripod mounting socket).

The gearbox and pedestal both have an angular readout wheel that displays the rotation increment of the swing arm and turntable respectively. The base structure of the M-1000 serves as a convenient and sturdy work platform and also provides a protective shipping or transport enclosure (42" long x 24" wide x 5" high).

Included with all Magellan Object Rigs are all the necessary software utilities required to create your own QTVR object movies.

The M-1000 is designed to be upgradeable to the motorized capabilities of the Magellan 1500 (M-1500). The M-1500 and the M-1000 motor upgrade kit are expected to ship in Aug. 1996.

Options (available in Aug. 1996) include a black photographic backdrop (BKDP-1) adapted for use with the Magellan 1000 series and a four-legged support stand (MGSS-1).

### Magellan 1000 (M-1000)

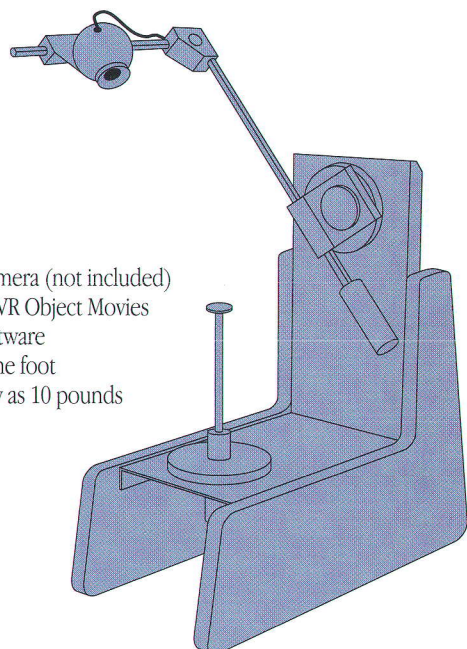
T1975Z/A **\$1,995.95**

**Magellan Photographic Backdrop (BKDP-1) Avail. 8/96**

T1976Z/A **\$299.95**

**Magellan 1000 Series Support Stand (MGSS-1) Avail. 8/96**

T1977Z/A **\$199.95**



### Features

- Affordable
- Portable
- Uses Color QuickCam camera (not included)
- Facilitates creation of QTVR Object Movies
- Includes all necessary software
- Supports objects up to one foot
- Supports objects as heavy as 10 pounds

## Magellan QC

**COMING  
SOON**

The Magellan QC is the smallest and most affordable member of the Magellan family. Capable of handling objects as large as one foot in diameter and 10 pounds in weight, the Magellan QC is the perfect choice for those needing to capture small objects at a reasonable price. The Magellan QC is designed to exploit the capabilities of the recently announced Connectix Color QuickCam digital camera for QTVR object capture. The Color QuickCam's close focusing capability (one inch to infinity), 640 x 480 resolution, 24-bit color support, convenient size and low cost make it an ideal camera for QTVR object movies.

The Magellan QC uses the same proven manual click-stop components used on Kaidan's line of QuickPan Tripod heads. As with all Magellan products, the QC comes with all necessary software utilities required to create QTVR movies right out of the box. Thus, with the Magellan QC and the color QuickCam combination, a complete QTVR object movie solution is possible for just over \$600. The Color QuickCam camera shown is not included.

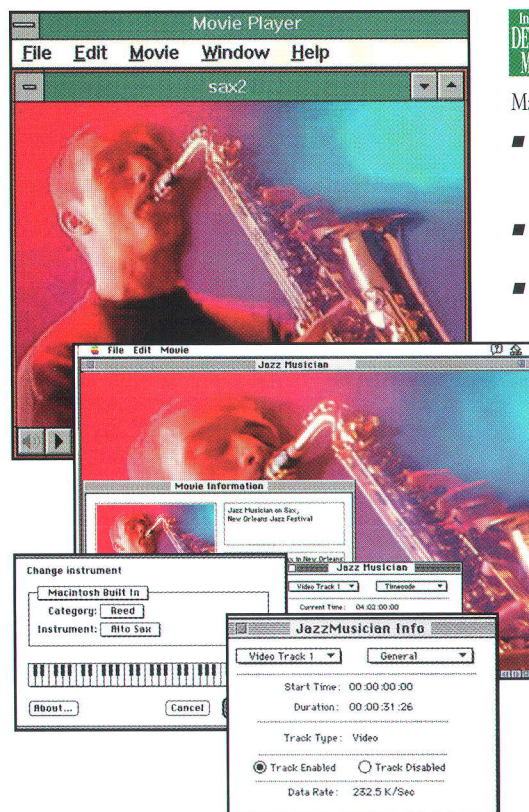
### Magellan QC (M-QC)

T1974Z/A **\$399.95**



Apple Computer, Inc.

## QuickTime Developer's Kit 2.0



Now you can give your Macintosh and Windows applications real-life motion and sound.

Macintosh environment features:

- QuickTime 2.0 Extension, QuickTime Power Macintosh Extension, and QuickTime Musical Instruments extension
- Utilities like MoviePlayer 2.0, 16-bit Audio Compression and more
- Sample content such as MPEG Movies, Music Movies, Time-Code Movies, and 60 field per second movies
- New sample code and headers

Includes software-only playback features such as faster 2x playback mode for current compressors, Apple Cinepak compressor, 1-bit fast dithering, network tuning, load-into-RAM option, and Photo CD support.

### Macintosh-based Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 2 MB RAM (4 MB RAM recommended for System 7); 40 MB hard disk space; System 6.0.7 or later; and a CD-ROM drive.

### Windows-based Requirements

IBM or IBM-compatible computer with 386SX or greater processor; 4 MB RAM; 40 MB hard disk space; a CD-ROM drive; VGA or better graphics card; sound card; Windows 3.1; and DOS 5.0.

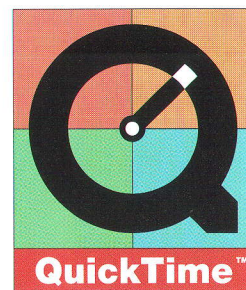
### Special User Notes

Virtual memory may cause movies to play improperly. The Windows-based product is implemented as a set of Windows Dynamic Linked Libraries (DLLs). QuickTime uses the same API, movie files, decompressors, and human interface as are supported on the Macintosh and also supports Windows MCI (Media Control Interface) and OLE (Object Linking & Embedding), Visual BASIC, and Visual C++, and includes a Macintosh/Windows hybrid CD-ROM.

### Licensing Note

Call Apple Software Licensing at 1-512-919-2645 for licensing details.

R0147LL/D

**\$99.00**

Allegiant Technologies, Inc.

## SuperCard 2.5 Multimedia with free MegaStudio CD-ROM

SuperCard 2.5 is the fastest, most powerful authoring tool for assembling and delivering world-class multimedia content and custom interactive applications. Save money and get a complete multimedia production bundle all on one CD-ROM! CD includes: SuperCard 2.5 (Authoring); Avid VideoShop 3.0 (Video Editing); Specular LogoMotion (3D and Animation); Opcode AudioShop 2.1 (Sound Editing); Gryphon Morph 2.5 (Special Effects); and Specular TextureShape (Content). SuperCard offers direct script control over all objects: paint and draw graphics, menus, windows, sounds, QuickTime movies, even Director animations. Automatically converts Hypercard stacks to SuperCard projects. Use for computer-based training and simulations, interactive and multimedia presentations, educational research, and applications development.

### Requirements

Macintosh or Mac OS-compatible computer with 68020 or greater processor; 2 MB RAM for black and white applications; 4 MB RAM for color applications; 10 MB hard disk space; System 7.0 or later (7.1 or later for text-to-speech; QuickTime 2.0 or later for movies); CD-ROM drive.

T1815Z/A

**\$399.00**

The University of Texas

## iTOWER Developer's CD 1.2: The Multimedia Kiosk Tool Kit

The iTOWER Developer's CD is the product of a collaborative effort between The University of Texas at Austin and Apple Computer to develop interactive multimedia kiosks providing a variety of enterprise-wide information services from networked sources. This CD contains the tools you need to produce kiosks and other multimedia applications which deliver interactive services from networked sources ranging from Internet servers to mainframe business computers. It includes all of the project's technical documentation, design guidelines, HyperCard authoring tools, network communications software, graphics design tools, QuickTime 2.0 movie production tools, equipment specifications, vendor lists, and registration information for the National Kiosk Developers' Workshops.

The CD provides a full working version of the iTOWER software.

### Features

- Interactive map workbench that quickly enables creation of advanced interactive color maps of cities, campuses, buildings, or other facilities
- Full color dialog boxes and touch screen keyboards

- Security software to create fully protected public access HyperCard applications
- Standard routines to process common functions such as user navigation, help, audio controls, screen savers, movies, etc.
- Tools for creating over-sized color messages
- Graphics templates and instructions
- QuickTime production guide, including QuickTime 2.0

### Requirements

Macintosh or Mac OS-compatible computer with a 68040 or greater processor; 12 MB RAM; System 7 or later; 300 kbps CD-ROM Drive; 13" color monitor.

### Notes

Authoring tools use HyperCard which is sold separately. Graphics tools use Adobe Photoshop which is sold separately.

T1615LL/A

**\$195.00**

## Books and References

For books and references in the Multimedia category, see page 52.



Elektroson, Inc.

## GEAR Multi-OS CD-R Mastering Software

GEAR is the professional mastering software for cross-platform CD-ROM development and data storage applications.

### Enhance the Power of Your CD Recorder

GEAR Desktop Multi-OS CD-R software is the most comprehensive CD recording software package for professionals that utilize CD-R in title development, premaster testing, audio applications, prepress storage, and mission critical archiving.

GEAR generates all major industry formats, including Shared Hybrid, HFS, and ISO-9660 for unmatched cross platform CD-ROM development. Support for every major CD recorder model, including new versions from Sony, Philips, Yamaha, HP, and Pinnacle Micro, makes GEAR an excellent upgrade to your CD recorder configuration.

### Flexibility... 100% Data Integrity

GEAR Desktop Multi-OS provides the fastest virtual formatting speeds and support up to ISO Level 3, giving you the flexibility to keep native Mac file names up to 31 characters and resource fork descriptors in tact under ISO 9660—the industry standard CD format for cross platform compatibility.



Features such as post gap writing on all recorders, universal multi-session and disc-at-once recording, full error code handling and device testing, and full verification of the formatted data earn GEAR the highest marks in flexibility and data integrity.

### Most Extensive Multimedia Format Support

GEAR allows you to master virtually any CD-ROM format. Formatting engines include Shared Hybrid, DA, XA, XA Interleaving, Enhanced CD, and mixed mode. In addition, users have the ability to master any professional multimedia authored file such as MPEG, CD-I, Video CD, and other major game formats.

In addition to detailed volume descriptor editing, the advanced user-defined disk properties can be edited to cut virtually any multimedia CD format. GEAR is continually adding new CD formatting engines and advanced feature sets.

### For the Professional Title Developer

For professional developers who require absolute data integrity before mastering, GEAR is the only product to support DDP Premaster output (a sector



level description and layout of your authored title), the preferred method to

generate a glass master.

### Cross Platform OS, Multi-Language Support

GEAR Desktop includes versions for Macintosh, Windows 95, NT, and 3.1, and OS/2 WARP, giving professional developers the ability to master and archive data on all major operating systems. GEAR is delivered on CD-ROM, with localized versions and documentation in English, French, and German languages.

### Features

- CD Formats Supported:  
ISO 9660 (up to 37 characters); HFS Partitions; Shared Hybrid (ISO/HFS); XA, XA Interleaving; CD-I, Video CD files; Digital Audio & Mixmode; Enhanced CD (CD+); Multi-session; Game Titles; Custom Image Mastering; DDP, ANSI X3.27-1987 Output
- Disc-at-once, Track-at-once
- Drivers for virtually all CD recorders
- Multi-platter jukebox and transporter support
- Macintosh Specific (v. 3.0):  
Native Power Macintosh; SCSI Manager 4.3 compatible; AppleGuide support
- Additional Operating Systems (v. 3.2):  
Windows 95; Windows NT; Windows 3.1; OS/2 Warp
- Localized Software and Online Documentation in English, French, and German

### Requirements

**Macintosh:** Macintosh or Mac OS-compatible computer with a 68040 or greater processor; 8 MB RAM; 2 MB hard disk space; System 7 or later; CD-Recorder or tape unit; available SCSI ID for CD-Recorder or Tape Device; 12 millisecond or less HDD (non-thermal recalibration) for Image Management.

**Windows 95, NT, 3.1:** IBM or IBM-compatible computer with a 80486 or greater processor; 8 MB RAM; 2 MB hard disk space; MS Windows version 95, NT, or 3.1; Busmaster SCSI Adaptor; 12 millisecond or less HDD (non-thermal recalibration) for Image Management.

**OS/2 Warp:** IBM or IBM-compatible computer with a 80486 or greater processor; 8 MB RAM; 2 MB hard disk space; OS/2 Warp version 3.x; Busmaster SCSI Adaptor; 12 millisecond or less HDD (non-thermal recalibration) for Image Management.

### Note

CD recorder and CD-R jukeboxes are not supplied.

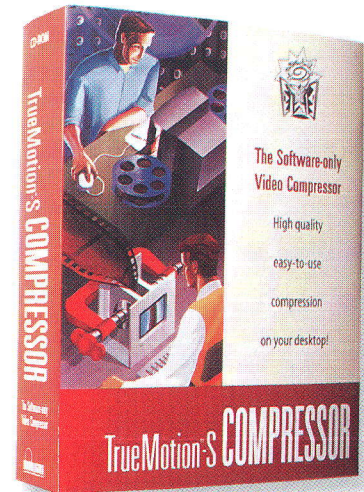
T1827Z/A

**\$399.00**

Horizons Technology, Inc.

## TrueMotion-S

TrueMotion-S Video is a software-only video compression and decompression addition module which provides video editing programs such as Adobe Premiere, Ulead Systems MediaStudio Pro, and Avid's VideoShop with the option of TM-S compression. TM-S gives excellent playback performance at 2x, 4x, or higher CD-ROM rates without the need for special decoder silicon on custom boards. Multimedia professionals and CD-ROM developers will appreciate TM-S as a versatile addition to their development tool kit.



TrueMotion-S is based on an intraframe compression scheme which individually compresses each frame of video. Competing systems utilize a complex strategy of inter-frame compression, which looks at data that has changed between frames. With TrueMotion-S, since every frame is a key frame and compressed individually, the developer has complete interactive editing powers and can quickly move forward or backward. It is therefore possible to easily access any video frame, play in reverse or forward, and use trick play features such as zoom. The developer can produce full-screen (640 x 480 pixels) by doubling the size of the video while retaining a very high quality appearance on screen.

### Requirements

**Compressor:** Macintosh or Mac OS-compatible computer with a 68040 or greater processor; 16 MB RAM; 254 K hard disk space; System 7 or later; A/V input via Apple internal or Radius VideoVision Studio 2.0 card; A/V-capable display architecture; RAID or AV drive capable of 4 MB/sec sustained transfer rate.

**Decompressor:** Macintosh or Mac OS-compatible computer with a 68040 or greater processor; 4 MB RAM; 64 K hard disk space; System 7 or later; color display set for 16-bit display; QuickTime 2.0.

### Note

Product available through catalog to U.S. customers only. Customers located outside the U.S. should call (011) 31.2356.85558.

T1908LL/A (U.S. only)

**\$995.00**



# Apple Media Program

The *Online* media information source for technology, tools, resources, and the new media developer community.

<http://www.amp.apple.com>

Designed for content developers and the creative community, the Apple Media Program (AMP) offers a breadth of resources and information to keep new media developers up-to-date on Apple's offerings for authoring and playback. Access to these resources are available on the World Wide Web, through the Apple Multimedia Information Mailing, and by joining the Apple Media Program.

## AMP Web Site

AMP benefits and resources are delivered online via the AMP Web site. Resources for developers include demonstrations, survival guides, tools, white papers, chats, multimedia guides, market research reports, and success stories. These materials may be downloaded directly from the AMP Web site or from the quarterly CD.

## Members Only Area

The special Members Only area provides members first access to the latest information available, co-marketing opportunities, and discounts on multimedia events, training, and third party products. AMP members also receive invitations to special networking events, seeding opportunities, and development hardware purchasing privileges with the option to buy a designated number of Apple products at a discount to facilitate initial development. (Option not available in all countries.)

## Apple Multimedia Information Mailing

Members receive a starter kit with materials that focus on the needs of the new media community, including *Multimedia Demystified* from the Apple New Media Library series published by Random House. Quarterly mailings include a newsletter and CD packed with information, demos, and resources to keep at your fingertips. The Apple Multimedia Information Mailing can be ordered separately.

## Technical Support

AMP members primarily rely on the Apple Multimedia Information Mailing and online resources for information and services. For those who occasionally need programming-level (code-level) technical support, the ability to purchase individual questions is available. All questions are submitted and answered by e-mail.



## How to Join

The annual fee for the Apple Media Program is US \$300. For more information, or to obtain an application, contact any of the following:

**Internet** [devsupport@applelink.apple.com](mailto:devsupport@applelink.apple.com)

**Web Site** <http://www.amp.apple.com>

**Phone** 408/974-4897

If you are located outside North America, see page 42, or check

<http://www.amp.apple.com/program/intl.html>.

## Requirements

To run quarterly CDs, a Macintosh or Mac OS-compatible computer with System 7 or later and a CD-ROM drive is required.

## Apple Multimedia Information Mailing

### New Subscription

(Starter Kit & three quarterly mailings)

R0494LL/A (PAL) **\$149.00**

R0495LL/A (NTSC) **\$149.00**

### Subscription Renewal

(Four quarterly mailings)

R0496LL/A (PAL) **\$149.00**

R0497LL/A (NTSC) **\$149.00**



This product may contain Class 1b beta release products and Class 2 restricted products. Beta releases of products are not fully tested and documented, but are expected to be completed in the future. Class 2 products are not tested and documentation may still be in preliminary draft form.

Macromedia, Inc.

## Director Multimedia Studio 2



The most powerful tools for multimedia and the Internet, the Director Multimedia Studio 2 brings together the best products at the best price. Providing everything you need to create dynamic multimedia, the Studio includes: Director 5, the most powerful authoring tool for multimedia and the Internet; SoundEdit 16 version 2 plus DECK II 2.5 (Macintosh), the most powerful desktop tools for audio production; Extreme 3D, the most powerful 3D solution for design and multimedia; and Macromedia xRes2, the most powerful creative tool for high-resolution images.

## Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68040 or greater processor (Extreme 3D requires a math coprocessor); 16 MB RAM; 85 MB hard disk space; System 7.1 or higher; CD-ROM drive; 8 bit color monitor at 640 x 480 resolution or higher; Macintosh AV, Power Macintosh or third party hardware card to record 16-bit audio or to use Deck II.

## Note

Product available through catalog to U.S. customers only. Customers located outside the U.S. should contact the manufacturer for resellers in their area.

T1745LL/B

**\$999.00**



Macromedia, Inc.

## DECK II 2.5 Digital Audio Workstation Software

Award-winning software for professional-quality multitrack music and sound production, DECK II is the most powerful editing tool for audio production on the desktop. DECK II enables users to arrange an unlimited number of audio elements in time, play up to 32 tracks at once, and record new tracks while hearing previously recorded tracks. Users can simultaneously manage hundreds of files, then arrange, synchronize, and mix those tracks into a professional audio production—no additional hardware or software is required.

DECK II is the perfect solution for music recording and arranging, multimedia production, and digital video post production.

## Requirements

Macintosh or Mac OS-compatible computer with 16-bit audio (including Power Macintosh, Macintosh Quadra/Centris 660AV and 840AV, or any Macintosh IIx or later containing Digidesign Audiomedias, Audiomedias II, Audiomedias I, Sound Tools II, Pro Tools I/442, or RasterOps MediaTime); 8 MB RAM or more required for 4-8 track playback, 16 MB RAM or more required for 12-16 track playback (RAM requirements increase as track count increases); System 7.1 or later; Sound Manager 3.1; QuickTime 1.5 or later.

## Note

Original Digidesign Sound Tools I and Pro Tools III cards are not supported.

T1875Z/A

**\$399.00**



Apple Computer, Inc.

## QuickTake Software Developer's Kit

The QuickTake Software Developer's Kit gives the application developer the ability to take total software control of the QuickTake 150 and QuickTake 100 digital cameras. Through included APIs in the SDK, the developer can create applications that control camera functions including image capture; change quality or resolution settings; set the timer; delete images; download images or view thumbnails; and change flash settings. The SDK can be used to develop QuickTake savvy applications, OpenDoc components, plug-ins, HyperCard XCMDs, or OLE servers.

### Requirements

**Macintosh:** Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 5 MB RAM; 10 MB hard disk space; System 7.1 or later. **Power Macintosh:** Power Macintosh or Mac OS-compatible computer with a PPC 601 or greater processor; 8 MB RAM; 10 MB hard disk space; System 7.1 or later. **Windows:** IBM or IBM-compatible computer with a 80386 or greater processor; 2 MB RAM; 10 MB hard disk space; Windows 3.1, DOS 3.0 or later. A QuickTake camera is required for application development and testing.

R0597LL/B

**\$49.95**

### Equilibrium

## DeBabelizer Toolbox 1.6.5

DeBabelizer Toolbox is a robust, versatile application that saves time, effort, and money by offering automated graphics processing, image manipulation, and unrivaled cross-platform file translation capabilities—all in a single, integrated application. This award-winning product includes dozens of essential editing tools for automated image processing while also providing extensive translation for over 60 bit-mapped graphics and animation formats for Macintosh, PC (DOS and Windows), Amiga, SGI, and SUN workstations. Support for the interlaced GIF format, as well as JPEG and PNG are now included, making DeBabelizer an essential tool for Web page creation. Also featured is unsurpassed 24-bit to 8-bit color reduction and comprehensive palette controls. Integrated batch processing and internal scripting save time by automating repetitive editing and manipulation tasks.

### Requirements

**Macintosh or Mac OS-compatible computer** with a 68000 or greater processor; 2.6 MB RAM; 2.6 MB hard disk space; System 6.0.7 or later.

### Note

Product available through catalog to U.S. customers only. Customers located outside the U.S. should contact the manufacturer for resellers in their area.

### Single User

T1906LL/A (U.S. only)

**\$289.00**

### 5-User

T1907LL/A (U.S. only)

**\$1,135.00**

Terran Interactive

## Movie Cleaner Pro 1.2



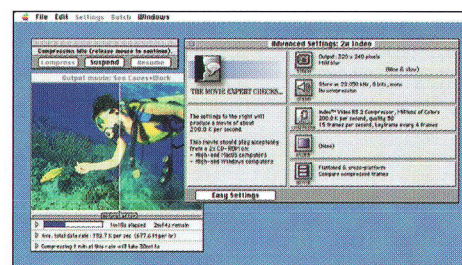
Make the best video... faster!

Movie Cleaner Pro is the right tool for QuickTime video compression. A dedicated QuickTime compression utility for the Mac OS, Movie Cleaner Pro lets you produce the highest quality compressed video, faster than any other tool available.

Powerful Features! Movie Cleaner Pro gives you a hefty bundle of professional-level features designed to improve the quality of your movies and increase your throughput.

### Features

- Easy to use! Compress QuickTime movies for hybrid CD-ROMs or the Web easier than ever. Simply answer the Movie Expert's questions and make great looking QuickTime videos.
- Drag & Drop Batch processing saves you time—set up a batch of up to 2000 movies in minutes.
- Suspend and Resume lets you use your computer as you need it. Stop compression at any time and then flawlessly continue—even for batches. You can check e-mail, author multimedia, even turn your computer off—without waiting to finish a compression job.



- Adaptive Noise Reduction, IMA audio compression, De-Interlacing, Gamma Correction, high-quality audio resampling, A/V fades, the "Talking Heads" Filter, and more. All designed into an easy-to-use interface.

- Improved speed—version 1.2 is over 30% faster.

MacUser magazine says, "Movie Cleaner Pro is a gem of a program that no serious multimedia developer should be without. It has everything that the file-size conscious moviemaker needs and has a great interface; an excellent tutorial; and a superb, innovative feature set."

### Requirements

**Macintosh or Mac OS-compatible computer** with a 68040 or greater processor; 8 MB RAM; 1 MB hard disk space; System 7 or later; QuickTime 2.0 or later.

T1884Z/B

**\$189.95**

Multimedia Labs, Inc.

## TC1490-7Sub Killer System

The professionals' "number one choice" for sound performance is the TC1490-7Sub audio computer sound system. It includes three separate hi-fi components engineered for Mac/PC professional sound reproduction performance at your desktop.



Monitor not included

### Features

- Delivers 40 watts rms per channel at less than 1% THD from 20 Hz to 20 kHz, 5 band + or - 12 dB per octave equalized. Supports monitors up to 20" in screen size.
- 6½", 80 watt rms subwoofer is equipped with dual 1½" voice coil technology.
- Satellite speakers offer true 2-way full-range double-port bass reflex cabinet. Both internal 5¼" mid low and 1" dome drivers are shielded.

### Requirements

**Macintosh or Mac OS-compatible computer;** 4 MB RAM; must be multimedia equipped for stereo use.

T1870Z/A

**\$179.95**

Apple Computer, Inc.

## Apple MPEG Starter Kit

The Apple MPEG Media System is an MPEG-1 hardware playback card that plays back digital video at 30 fps in 16-bit YUV color and with 16-bit CD sound. The Apple MPEG Media System, utilizing the C-Cube CL450, allows enough bandwidth for even an affordable 68040 CPU to smoothly play the most interactive MPEG games and titles.

The Apple MPEG Media System is tightly integrated with QuickTime—so standard QuickTime calls work every time. This means that existing titles can be quickly and effortlessly ported over to MPEG. In addition, chapter navigation support is built right in so Laser Disc content can be easily adapted.

The MPEG card is user installable into the LC PDS slot found on the Macintosh 630 series of computers, the Macintosh 580 series of computers, and the Power Macintosh 5200, 5300, 6200, and 6300 series of computers.

### Features

- MPEG-1 playback card
- MPEG software extensions
- 5 bundled MPEG titles
- MPEG developer's brief
- Sample MPEG bitstreams

### Requirements

**Power Macintosh, Macintosh, or Mac OS-compatible computer** with a 68040 or greater processor; 8 MB RAM; 2 MB hard disk space; System 7.5 or later; LCPDS and video slot; AppleVideo or TV/Video system.

M3763LL/A

**\$249.00**

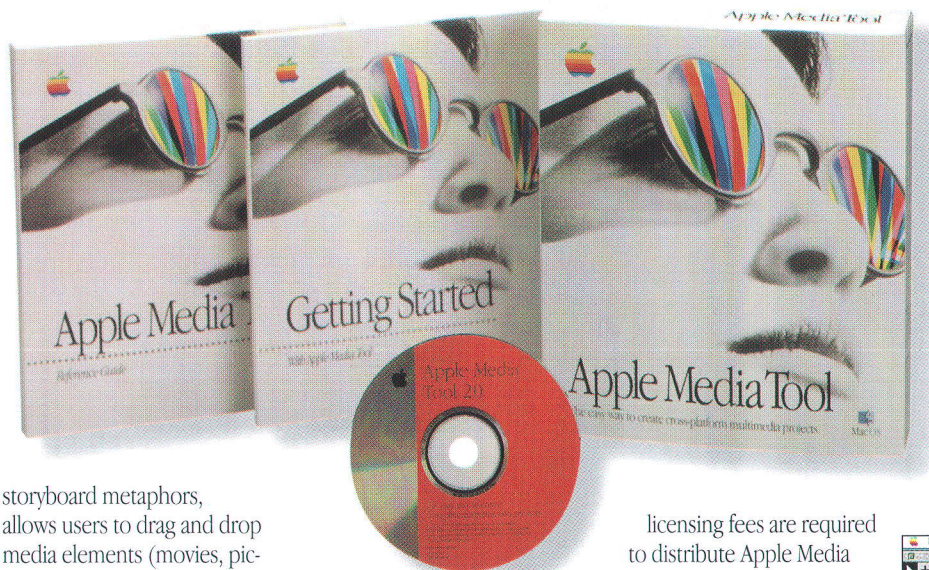


Apple Computer, Inc.

## Apple Media Tool 2.0

Bring your interactive visions to life! With Apple Media Tool, you can easily create dynamic interactive multimedia projects for both Macintosh and Windows platforms. This object-based multimedia authoring software, using familiar screen, map, and

new features including support for QuickTime VR, custom color palettes, AppleScript, HyperText links, and more. Additional features may be customized into Apple Media Tool by its companion product, Apple Media Tool Programming Environment. No



storyboard metaphors, allows users to drag and drop media elements (movies, pictures, words, and sounds) and easily add interactivity without scripting. You don't have to be a programmer or even learn a scripting language to create interactive multimedia catalogs, support and training modules, music titles, on-line advertising, and networked kiosks.

The new 2.0 version is fully native on Apple Power Macintosh computers and incorporates many

licensing fees are required to distribute Apple Media Tool presentations.

### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68030 or greater processor; 8 MB RAM (12 MB recommended); System 7.1 or later; QuickTime 2.1 (included); CD-ROM Drive.

### Apple Media Tool 2.0

M3871Z/B

**\$495.00**

### Apple Media Tool 2.0

(Upgrade from AMT 1.2)

M3955Z/B

**\$149.00**

### Apple Media Tool 2.0 Demo CD

L00662/C

**\$10.00**

# SAVE

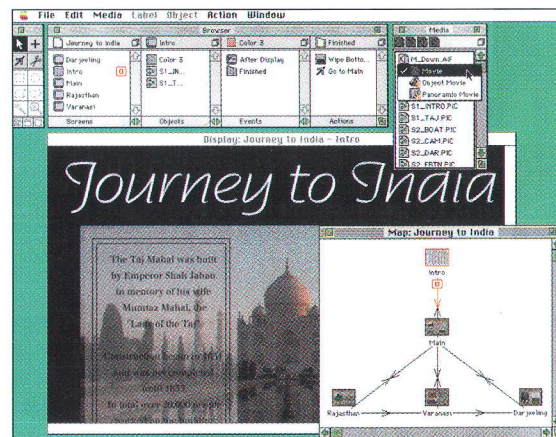
WITH OUR APPLE  
MEDIA TOOL AND  
MEDIA TOOL  
PROGRAMMING  
ENVIRONMENT BUNDLE.

B1453Z/D

**\$1,195.00**

UPGRADE BUNDLE  
FROM 1.2 TO 2.0

B2768Z/A

**\$295.00**

Apple Computer, Inc.

## Apple Media Tool Programming Environment 2.0

This object-oriented language and application framework allows programmers to customize features used within the Apple Media Tool authoring environment and add functionality to interactive projects created with Apple Media Tool. By tightly linking content creation with the programming process, development time can be dramatically reduced and you can give greater attention to content quality.

The new 2.0 version includes an expanded Apple Media Language (AML) class library, incremental compiling and linking

of AML code, improved and faster debugging facilities, Macintosh Programmers' Workshop (MPW), and enhanced, user-oriented documentation, written from an AMTPE developer's perspective.

Portable across 68K, Power Macintosh, and Windows platforms, the Programming Environment is easy to maintain and easily integrated with other languages such as C. Because the Programming Environment doesn't require the programmer to adapt to tools designed for content producers, the programming team has a virtually limitless range of options for customization and enhancements. No licensing fees are required to distribute Apple Media Tool presentations.

### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68030 or greater processor; 8 MB RAM (12 MB recommended); System 7.1 or later; QuickTime 2.1 (included); CD-ROM Drive.

### Apple Media Tool Programming Environment 2.0

H0108Z/C

**\$995.00**

### Apple Media Tool Programming Environment 2.0

(Upgrade from AMTPE 1.2)

M4068Z/B

**\$195.00**

**NOW  
INCLUDES**

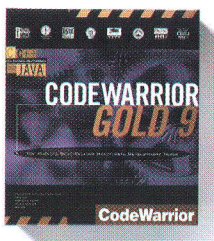
required MPW  
software and  
documentation as  
well as QuickTime  
and QuickTime for  
Windows



Metrowerks, Inc.

## CodeWarrior Gold 9

NEW  
VERSION



CodeWarrior Gold, the world's best-selling Macintosh development tools, offers everything you need for industrial-strength programming. This complete solution allows you to develop for Macintosh, Power Macintosh, Windows 95, Windows NT, Magic Cap and the BeOS. The award-winning, easy-to-use IDE supports C/C+++, Object Pascal and now Java. Also includes online books, extensive reference material and Apple Guide files for easy navigation through tutorials and examples. Two free updates and technical support included with registration.

### Features

- Now includes Java Tools—integrated Java plug-in compiler, project manager, editor, browser, source-level debugger, applet viewer and more.
- New—Beta release MIPS compiler!

T0937LL/H **\$399.00**

### Requirements (all products)

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 8 MB RAM (16 MB for Discover Java); 25 MB hard disk space (12 MB for Discover Java); System 7.1 or later (for 68K Macintosh) or System 7.1.2 or later (for Power Macintosh); CD-ROM drive.

Symantec Corporation

## Symantec C++ for Power Macintosh Release 5

NEW  
VERSION

Symantec C++ for Power Macintosh now comes with MrC—Apple's new optimizing compiler. Industry-standard Nullstone tests show that applications compiled with MrC run an average of 22% faster.

### Features

- AppleScript support to automate repetitive tasks
- New Project Manager to organize and navigate nested projects
- Multi-threaded environment lets you edit and write code while compiling
- Subscription program automatically provides two free product updates

### Requirements

Power Macintosh or Mac OS-compatible computer with a PPC 601 or greater processor; 8 MB RAM (12 MB recommended); System 7.0 or later; CD-ROM for installation.

### Note

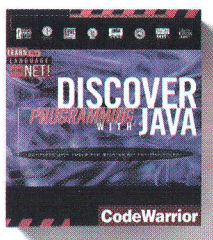
Symantec C++ for Power Macintosh Release 5 only generates code for PowerPC-based Macintosh computers. A copy of Symantec C++ 7.0 is included for those programming for the 68K-based platform. THINK C 6.0 is also included.

T1669LL/C (U.S., Canada, Mexico) **\$149.00**



## Discover Programming with Java

NEW  
PRODUCT



Discover Programming with Java offers everything you need to start programming with Java, the amazing new object programming language from Sun Microsystems. You'll find the award-winning CodeWarrior IDE, an extensive Java toolset, an electronic version of *Learn Java on the Macintosh* by Barry Boone with Dave Mark and six Apple Guide files, the electronic tutorials that take you step-by-step through the learning process. Free technical support from Metrowerks with registration.

T1960Z/A

**\$99.00**

## Discover Programming for Macintosh

(The Official CodeWarrior Starter Kit)

*Discover Programming for Macintosh* brings together all the resources you'll need to start and complete your programming education. Designed for both novice and experienced programmers, the

Symantec Corporation

## THINK Pascal 4.0

Professionals and students will welcome the rapid turnaround time offered by this fully integrated version of THINK Pascal that lets you take advantage of System 7 capabilities. Features include support for large projects, enhanced THINK Class Library, System 7 compatibility, superior code generation and smart linking. It comes with four Macintosh disks, a 562 page user manual, and a 498 page object-oriented programming manual.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM (4 MB recommended for the THINK Class Library or MacApp); System 6.0 or later.

T0068LL/D

**\$165.00**



See Page 58 for Asian, Latin American, and European localized versions of CodeWarrior Gold!

See the Books Section, Page 52, for Metrowerks books.

CD contains three online programming books as well as a full working copy of the best Macintosh development environment you can buy—CodeWarrior.

T1878Z/A **\$79.00**  
**Metrowerks CodeManager**

Save time and money managing complex software development projects with MW CodeManager, the only commercial cross-platform source code control system for the Macintosh, based on and compatible with Microsoft Visual SourceSafe version 4.0a. Designed for individual users or large, multi-platform project teams, MW CodeManager allows you to safely manage millions of lines of code and maintain source-code and version control with ease.

T1829Z/A

**\$399.00**

Apple Computer, Inc.

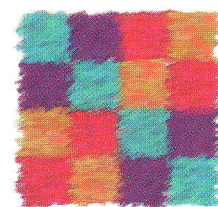
## Apple Dylan Technology Release

The Apple Dylan Technology Release is a prototype version of a Macintosh development environment based on the Object-Oriented Dynamic Language (OODL) Dylan. Applications under development can be run on any Macintosh and will run native on the PowerPC.



Apple Dylan

a dynamic object oriented language and development environment



### Features

- Customizable browsers
- Incremental development environment
- Dylan application framework and Dylan user-interface builder
- Cross-language support for C code and APIs

### Requirements

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 20 MB RAM; 8 MB hard disk space; System 7.1 or later; CD-ROM drive.

M4724Z/A

**\$39.95**



# E.T.O.: Essentials • Tools • Objects

Apple's deluxe collection of core programming tools

## Apple Computer, Inc.

E.T.O. has set the industry standard for providing professional software developers with regular updates to core development tools by subscription since 1990. Subscribers automatically receive the tools on CD three times during the subscription year—and at a very affordable price.

E.T.O. brings together a deluxe collection of Macintosh core development tools, designed to support C, C++, and assembly-language programmers. It contains a robust development environment (Macintosh Programmer's Workshop), compilers, debuggers, application frameworks, and testing

tools that you can use to streamline application development for 68K and Power Macintosh systems.

Although E.T.O. includes a complete development system, it also includes many components that work well with other popular development environments, particularly Metrowerks CodeWarrior and Symantec C++ for Power Macintosh. So it's a wise purchase regardless of your development environment preference.

And now, you can purchase E.T.O. together with either Symantec C++ Release 5 or Metrowerks CodeWarrior Gold 9. See the sidebar on the next page for more information.

## Major E.T.O. software components include:

**MPW Shell** The Shell is the centerpiece of the Macintosh Programmer's Workshop (MPW) development environment. It is an integrated multiwindow text editor and command executer which supports numerous built-in commands and a powerful scripting language that allows you to customize the environment to suit your needs. The Shell also includes Projector, an integrated source code control system that simplifies the management of large, complex software projects being worked on by a team of programmers.

**SC/SCpp — C and C++ Compilers (68K)** These are new ANSI-compliant 680x0-code-generating C and C++ compilers that are faster than previous compilers included with MPW, run in native mode on a Power Macintosh, and support the new CFM-68K runtime model.

**MrC/MrCpp — C and C++ Compilers (PowerPC)** These are new MPW compilers which offer greatly improved turnaround time and also generate efficient and highly-optimized PowerPC code for fast binary execution on Power Macintosh systems. MrC adheres to the ANSI C standard (ANSI X3.159-1991) and MrCpp adheres to the ANSI C++ working paper (ANSI X3J16), except for templates and exception handling.

**Assemblers (68K and PowerPC)** Two assemblers are included, one which supports the full 68xxx instruction set and the other which supports the PowerPC instruction set. The 68xxx assembler supports all the instructions and addressing modes for the MC68000, MC68010, MC68020, and MC68030 microprocessors, the MC68851 Paged Memory Management Unit (PMMU), and the MC68881 and MC68882 Floating-Point Coprocessors, in all usable combinations.

**MPW Tool and Script Suite** Dozens of tools and scripts are included to assist you in the development process. These include linkers, a Make tool, resource manipulation and analysis tools, file comparison utilities, and many more.

**MacApp** This is an advanced object-oriented application framework and class library which can be used to streamline the development of Power Macintosh and 680x0 applications through the benefits of object-oriented programming.

**SourceBug** This is a source-level debugger that provides basic debugging capabilities for 68K applications, such as setting breakpoints, controlling program execution, and displaying the contents of vari

## E.T.O. REFERENCE BOOKS

*E.T.O. includes electronic versions (in Adobe Acrobat format) for all the books listed below. These books are also available individually in printed form.*

### Building and Managing Programs in MPW

Describes all aspects of building and managing your software programs using MPW. It gives an overview of the build process, the runtime architectures available, and the types of programs you can build.

R0698Z/A **\$30.00**

### MrC/MrCpp: C/C++ Compiler for Power

**Macintosh** Covers MrC and MrCpp, which are ANSI-compliant, MPW-based C and C++ compilers that produce highly optimized code for the PowerPC environment.

R0690Z/A **\$15.00**

### SC/SCpp: C/C++ Compiler for 68K Macintosh

Describes SC and SCpp, the MPW-based compilers that generate 680x0 code.

R0699Z/A **\$15.00**

**MPW Assembler Reference (68K)** Explains how to prepare source files to be assembled by the MPW 68K Assembler.

R0591LL/A **\$25.00**

### Assembler for Macintosh with PowerPC

Describes how to write assembly-language programs that execute under the Macintosh operating system.

R0624LL/A **\$15.00**

**SourceBug Reference** Lists the most important components and features of the debugger in both reference and tutorial form.

R0217LL/B **\$10.00**

**Macintosh Debugger Reference** Shows how you can use the Macintosh Debugger to debug your programs and, for PowerPC debugging, measure their performance.

R0689Z/A **\$15.00**

### MacsBug Reference and Debugging Guide

Covers MacsBug, Apple's assembly-language debugger for Macintosh programmers.

R0063LL/A **\$24.95**

**ResEdit Reference** Describes ResEdit, an extensible stand-alone resource editor for the Macintosh computer—a powerful tool you can use to speed your software development process and to create icons, menus, and other resources for Macintosh programs and files.

M0015LL/D **\$15.95**

**Programmer's Guide to MacApp** Covers the architecture of MacApp 3.3 and describes how to make effective use of it. It also describes the programming features of MacApp and includes sample code and recipes for implementing a variety of features.

R0700Z/A **\$35.00**

### All Manuals Above as a Set

R0701Z/A **\$149.00**

*Note: The following book is included with the E.T.O. product. It is also sold separately for the benefit of site licensees who may wish to purchase additional copies.*

**Introduction to MPW, Second Edition** Contains introductory material you need to know before you can use the MPW development environment to create Macintosh software.

R0600LL/B **\$15.00**





ables. It also has special support for debugging object-oriented code.

**Power Macintosh Debugger** This powerful PowerPC debugger features an easy-to-use interface that allows you to set breakpoints, examine and change the contents of memory and registers, and view your code at either the assembler or source level. It can also be used to trace your application's execution or gather performance data. It works in a one-machine or two-machine environment, thus allowing you to debug almost any type of code running on the target system. The Power Macintosh Debugger can be used with symbol files emitted by MPW, Metrowerks CodeWarrior, and Symantec C++ for Power Macintosh environments.

**MacsBug** This is a low-level debugger for debugging software at the assembly-language level (680x0 or PowerPC). It loads at system startup time and idles until it is invoked either manually (by pressing the interrupt switch or a key that you define) or programmatically (by calling special traps from within your program). And since MacsBug needs so little of the system to operate, it can be used even in the case of fatal system errors.

**ResEdit** This is a graphical resource editor for creating and editing elements of the Macintosh user interface such as menus, windows, icons, dialog boxes, and other standard data structures. Programmers and advanced users can quickly create portions of their application's user interface as well as modify an existing interface.

**Macintosh Programmer's Assistant** This is a useful on-line reference tool which provides rapid up-to-date access to information on all aspects of the Macintosh API, including toolbox managers, data structures, routines, constants, resources, and MPW commands. MPW scripts and tools are also provided that let you access it directly from the MPW environment using "hot keys." It is also easily accessible from CodeWarrior or Symantec C++.

**Virtual User** Virtual User is a test automation system that enables a host Macintosh to control the actions of target Macintosh computers remotely. The host executes tests on one or more target machines by reading the commands it is to issue from a file called a script. The script is a text file written in the Virtual User scripting language. This interpreted procedural language provides Virtual User with the ability to recognize and manipulate various elements of an application's human interface, compare the actual result of a command with an expected result, and branch logically according to the result of the comparison.

**...and More!** Watch our web site at <http://www.devtools.apple.com> for the latest information about E.T.O., including the OpenDoc Development Framework (ODF) for streamlining the creation of OpenDoc components.

Remember that E.T.O. also includes pre-release versions of several tools, thus providing you with early access to bug fixes and enhancements.

#### Reference Books

E.T.O. comes with a printed reference book that introduces you to the MPW development environment—*Introduction to MPW*.

An electronic version of this manual and of the manuals for all the major components of E.T.O. are also provided. You can easily print the electronic manuals yourself or order printed manuals separately (see sidebar on page 14).

#### How to Order

To get E.T.O., order the New Subscriber Package. This will give you all the software described, the printed *Introduction to MPW*, and the next two updates to E.T.O. as they are released.

#### Special Ordering Notes

- To renew your existing E.T.O. subscription, order the Annual E.T.O. Subscription Renewal (3 issues) product.
- If you already own Apple's MPW product, you can upgrade to an E.T.O. subscription simply by purchasing the Annual E.T.O. Subscription Renewal (3 issues) product.

#### Special User Note

The list of components included on E.T.O. is subject to change without notice. For a detailed product description, visit our World Wide Web site at <http://www.devtools.apple.com>.

**⚠** This product may contain Class 1b beta release products and Class 2 restricted products. Beta releases of products are not fully tested and documented, but are expected to be completed in the future. Class 2 products are not tested, and documentation may still be in preliminary draft form.

#### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 8 MB RAM (16 MB or more strongly recommended); System 7 or later; CD-ROM drive. RAM requirements vary depending on the tools being used.

A Power Macintosh is required for execution of PowerPC code. The Power Macintosh compilers and tools run in 680x0-based systems or in Power Macintosh emulation mode; some tools are also provided for use in Power Macintosh native mode.

#### E.T.O.: Essentials•Tools•Objects New Subscriber Package

M0895LL/C **\$195.00**

#### Annual E.T.O. Subscription Renewal (3 issues)

R0076LL/B **\$125.00**

#### E.T.O. and Symantec C++ Release 5

B2845Z/A **\$249.00**

#### E.T.O. and Metrowerks CodeWarrior 9

B2846Z/A **\$499.00**

### Compliment Your Development Environment With E.T.O.

E.T.O. is an excellent product that includes a complete C/C++ development environment—MPW. It also includes many components that are not available with either Metrowerks CodeWarrior or Symantec C++, making it a valuable companion to these other popular environments. For example, Metrowerks CodeWarrior and Symantec C++ users will find E.T.O. the most convenient source for the Macintosh Programmer's Assistant, performance analysis tools, Pascal to C conversion tools, and the Virtual User testing tool. CodeWarrior users also get the benefit of a plug-in MrC/MrCpp compiler and the Power Mac Debugger.

To help developers leverage the full value of E.T.O., Apple is now offering special prices when you purchase E.T.O. with CodeWarrior or Symantec C++. For just \$100 more, you'll get an

E.T.O. subscription! If you already have one of these environments, you can take advantage of Apple's new low price for E.T.O.—now only \$195! To reach this all-time low, we've adjusted the mix of components included and made the complete set of printed books an optional add-on instead of a requirement.

So, remember, the best solution for C/C++ developers today is E.T.O. plus your favorite integrated development environment. If there are other enhancements to E.T.O. you would like to see, please drop us a line and let us know.

E.T.O. Product Manager  
[dev.tools@applelink.apple.com](mailto:dev.tools@applelink.apple.com)

**E.T.O. RELEASES ARE  
SCHEDULED FOR  
AUGUST,  
DECEMBER,  
AND APRIL  
EACH YEAR**



Apple Computer, Inc.

## Macintosh Common Lisp 3.0

This object-oriented dynamic language is fully integrated with the Macintosh and includes a fast incremental Common Lisp compiler, a rich set of Lisp programming tools, and an extensive library of Common Lisp Object System (CLOS) objects, including Macintosh user interface objects. Macintosh Common Lisp (MCL) is especially well-suited for rapid prototyping and cost effective delivery of applications.

### Features

- Interactive dynamic environment
- Fast, incremental Common Lisp compiler
- Industry-standard implementation of Common Lisp and CLOS
- Multiple processes
- Sophisticated object-oriented error condition system
- Smart programmable tools for prototyping, programming, and debugging, including an interface toolkit, a source code stepper, a symbolic debugger, a dynamic object inspector, and a stack backtrace
- Full programmable syntax-aware editor
- Automatic memory management, which is handled incrementally by an ephemeral garbage collector
- Foreign-function interface, allowing Lisp programs to call functions created with MPW languages such as C, Pascal, and Assembler
- Full Lisp source code for many examples and utilities
- Smaller application footprint

### Licensing Notes

You may ship any quantity of applications created with MCL with purchase of the Macintosh Common Lisp Redistribution Kit.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM; 8 MB hard disk space; System 7 or later; CD-ROM drive.

### Macintosh Common Lisp 3.0

R0167Z/C **\$595.00**

### Macintosh Common Lisp 3.0 Upgrade

R0561Z/B **\$135.00**

### Macintosh Common Lisp Redistribution Kit

R0656Z/A **\$400.00**

### Macintosh Common Lisp Compiler Redistribution Kit

R0657Z/A **\$2,000.00**

**PowerPC Upgrades  
Now Available from  
Digitool for MCL 3.0  
Customers Only.**

Absoft Corporation

## Absoft C/C++ SDK for Power Macintosh

This complete software development kit for C/C++ includes ANSI C, K&R C and C++ Plum Hall validated compilation systems. Excellent workstation code compatibility. It supports templates, exceptions, STL, long long, and is fully link compatible with Absoft F77. The SDK includes PPC and 68K code generators, debugger, class browser, profiler, Macintosh Runtime Window Environment (MRWE) application framework, two graphics libraries, great error messages, and Apple's MPW. It supports Macintosh Toolbox and all MPW tools, and includes a 150 page illustrated manual.

### Requirements

Power Macintosh or Mac OS-compatible computer with a PPC 601 or greater processor; 16 MB RAM; 12 MB hard disk space; System 7.1.2 or later.

### In Japan contact

SENKO Corporation:

(Tel) 81 45 320 2711

(Fax) 81 45 320 9342

E-Works: (Tel) 81 3 3590 2931

(Fax) 81 3 3590 2930

T1664LL/A

**\$399.00**

Absoft Corporation

## MacFORTRAN II 3.4 for 68K Macintosh

The world's most popular FORTRAN 77 for Macintosh is VAX/VMS compatible, full ANSI/ISO, MIL-STD-1753 validated. Acknowledged to generate the fastest executing code for 68K based Macintosh systems, this product is a full development kit and includes Absoft's Macintosh Runtime Window Environment (MRWE) application framework (with fully documented source code as examples), two graphics libraries, a symbolic debugger, Absoft CreateMake (ACM), and Apple's MPW. It supports System 7.5, Apple events, the Macintosh Toolbox, and all MPW tools, and may be used in conjunction with Absoft's F77 SDK on Power Macintosh (emulation mode) to create 'fat' binaries. It is source compatible with F77 SDK and includes a 450-page illustrated manual with examples.

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor and FPU; 8 MB RAM; 10 MB hard disk space; System 7.1.2 or later.

### In Japan contact

SENKO Corporation:

(Tel) 81 45 320 2711

(Fax) 81 45 320 9342

E-Works: (Tel) 81 3 3590 2931

(Fax) 81 3 3590 2930

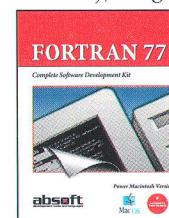
T0254LL/F

**\$550.00**

Absoft Corporation

## Absoft F77 SDK for Power Macintosh

Absoft F77 SDK is the world's best-selling FORTRAN software development kit for Power Macintosh Programmers. F77 SDK includes globally optimizing code generators for both PPC (plus 604 optimizer) and 68K, graphical debugger, browsers, 2D array display, linker, MRWE application framework written entirely in FORTRAN (full source included), two graphics libraries, performance pro-



filer, Absoft CreateMake, VAX/VMS and UNIX compatibility libraries, several utilities, latest version of MPW, and 450+ pages of fully illustrated documentation.

Absoft F77 SDK is link compatible with Absoft F90 (beta) and CodeWarrior, and

supports Apple events, Publish and Subscribe, and AppleScript. It is fully compatible with the Toolbox, other MPW tools and languages, and most third party products. F77 is source compatible with Absoft F77 compilers for Windows 95, Windows NT, and UNIX.

### Requirements

Power Macintosh or Mac OS-compatible computer with a PPC 601 or greater processor; 16 MB RAM; 21 MB hard disk space; System 7.1.2 or later.

T1171LL/A

**\$699.00**

Natural Intelligence, Inc.

## Roaster

Be the first Macintosh developer on your block to take advantage of the unique capabilities of Sun's new Java programming language! Roaster, new from Natural Intelligence, Inc., is the first development environment for writing, testing, and running Java applets on the Macintosh.

### Features

- Fully integrated development environment
- Project window that includes a Finder-like view of packages
- Lightning-fast, Power Macintosh native compiler
- Source code editor with powerful search features and intuitive user interface
- Run-time engine for quick and easy applet testing
- Unlimited technical support throughout your subscription
- Subscription includes two commercial releases of Roaster and all associated net updates

### Requirements

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 8 MB RAM; 30 MB hard disk space; System 7.1.2 or later.

T1872Z/B

**\$299.00**



## Motorola RISC Software

**Motorola C/C++ SDK**

Motorola C/C++ SDK, PowerPC Edition for Mac OS, produces aggressively optimized applications from within today's most popular development environments. The Motorola compilers are available as part of a full SDK with MPW and the Kuck & Associates pre-processor (KAP for C) or as C/C++ plug-ins for the Metrowerks CodeWarrior and Symantec Project Manager (SPM) environments. Motorola compilers can optimize code for any specific PowerPC microprocessor, while ensuring that the binary will be fully compatible with any member of the PowerPC family.

**Features**

- Full SDK includes:
  - Motorola C/C++ compilers for MPW, CodeWarrior, and SPM
  - Apple MPW and tools
  - KAP for C
- Plug-in Kit offers C/C++ compilers for CodeWarrior and SPM only
- ANSI-compliant front ends
- Multiple optimization levels
- Complete documentation

**Requirements**

Power Macintosh or Mac OS-compatible computer with a PPC 601 or greater processor; 8 MB RAM; 20 MB hard disk space; System 7.5 or later; CD-ROM drive.

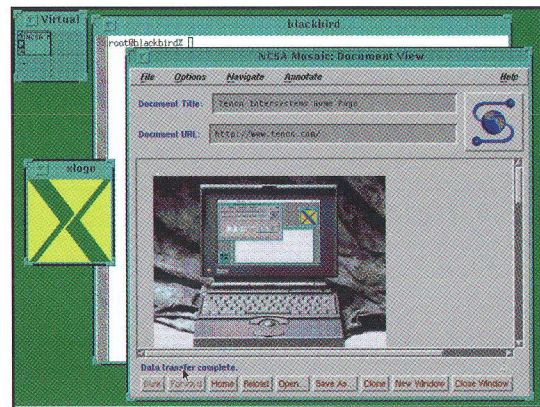
**C/C++ SDK**

T1868Z/B **\$299.00**

**C/C++ Plug-in Kit**

T1969Z/A **\$99.00**

## Tenon Intersystems

**Power Mach<sup>Ten</sup> for Macintosh**

With Tenon's new PowerPC native Mach<sup>Ten</sup>, you can develop PowerPC, UNIX, and Macintosh applications using standard UNIX C and C++ tools. You also can use standard Power Macintosh software development tools such as Metrowerks' CodeWarrior and Apple's MPW to develop Mach<sup>Ten</sup> UNIX applications.

Power Mach<sup>Ten</sup> is a BSD/MACH UNIX that runs on all Power Macintosh computers and those accelerated with PowerPC upgrade cards. Mach<sup>Ten</sup>'s strength lies in the way it extends the Macintosh

operating system with UNIX networking and software development tools. The Macintosh/UNIX integration is so strong that you can even use Macintosh programs and utilities on UNIX data, and UNIX programs and utilities on Macintosh files.

Full Internet protocol support ensures fast, easy client and server NFS, e-mail, and file transfer between the Macintosh and all TCP-based entities on your network. Built-in Internet services include domain name service, POP mail service, Internet routing, SLIP & PPP, and Web service.

Full X11R5 support with Motif make developing distributed applications a breeze.

And, Tenon's high-performance X server lets you use your Power Macintosh as an X terminal.

**Features**

- Full Macintosh application compatibility
- Industry-standard UNIX software development environment
- Internet communications support
- Distributed File System with NFS client and server
- X Window development environment with Motif
- High-performance X server with mwm and olvwm

**Requirements**

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM (16 MB RAM for Power Macintosh); 80 MB hard disk space (100 MB for Power Macintosh); System 7 or later; CD-ROM drive.

**Power Mach<sup>Ten</sup> (for Power Macintosh)**

T1718Z/A **\$695.00**

**Personal Mach<sup>Ten</sup> (for 68K Macintosh)**

T1754Z/A **\$495.00**

**Professional Mach<sup>Ten</sup> (for 68K Macintosh)**

T1755Z/A **\$695.00**

**Mach<sup>Ten</sup> X Window Software (for 68K Macintosh)**

T1753Z/A **\$350.00**

**Mach<sup>Ten</sup> Ported Application CD (applications for 68K-based Mach<sup>Ten</sup>)**

T1752Z/A **\$50.00**

**Mach<sup>Ten</sup> Technical Documentation (supplemental documentation for 68K-based Mach<sup>Ten</sup>)**

T1751Z/A **\$300.00**



ACI US, Inc.

**Object Master 3.0 Universal**

Object Master is an innovative programming environment that provides all the necessary tools to write, organize, and navigate through source code and speed the development of C/C++ programming. Object Master is available for both Macintosh and Windows, and allows you to use the same project interchangeably across both platforms. Object Master supports C and C++ programming languages and works seamlessly with all major compilation systems.

Object Master also parses code, checks syntax in real-time, and maintains a dynamic data dictionary of components. It includes industrial-strength browser windows, graphical class-tree windows, a sophisticated source code editor, and parser.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 2 MB RAM; 2 MB of hard disk space; System 6.0.5 or later.

T0601LL/D

**\$249.00**

Mainstay

**VIP-C 2.0**

Finally there's a C development environment that anyone can use. VIP-C is the fastest, easiest way to create complete, professional, stand-alone Macintosh and Power Macintosh applications—period. If you're tired of juggling editors, interface design tools, debuggers, and compilers, or intimidated by the myriad development tools you need to get started, end your search for development utopia here. VIP-C gives you everything you need in one box, at a price anyone can afford. And with VIP-C you program the way you want. Work in a traditional bottom-up approach, or design your program's interface first with a powerful, integrated Form editor—complete with plug-in control modules. Because your program is in standard ANSI C, it's portable and completely compatible with other past, present, and future C development environments.

**Requirements**

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68030 or greater processor; 4 MB RAM (8 MB RAM recommended); 12 MB hard disk space; System 7 or later.

T0822LL/B

**\$349.00**

Microsoft Corporation

**Visual C++ Cross Development Edition for Macintosh 4.0**

Learn one toolset, increase your user base, and knock months off your development time. With this Visual C++ add-on toolset, you can use up to 90 percent of the code from your Windows-based application to create the same application for the Macintosh, with the familiar Macintosh interface.

**Requirements**

Host: IBM or IBM-compatible computer with 80486 or greater processor; 16 MB RAM (20 MB recommended); 70 MB hard disk space; Windows NT 3.5.1 or Windows 95; Visual C++ 4.0; CD-ROM drive.

Target: Power Macintosh, Macintosh, or Mac OS-compatible computer with 68020 or greater processor; 8 MB RAM (16 MB recommended and required for OLE development); 20 MB hard disk space; System 7 or later; CD-ROM drive.

Ethernet hardware supporting an Ethernet AppleTalk or TCP/IP network connection between the PC and Macintosh.

**Note**

See ad on page 33.

**Visual C++ Cross Development Edition**

T1740Z/A

**\$1,999.00****Competitive Upgrade**

T1989Z/A

**\$199.00**

STAZ Software, Inc.

**FutureBASIC II 2.0 and Program Generator**

FutureBASIC II (FB II) is a powerful, easy-to-use, BASIC compiler and editor. You can create and modify your source code in the editor and test your work without switching to a separate compiler. FB II generates applications that run at speeds equal to C and Pascal, yet it is much easier to learn. You can create custom, double-clickable applications that address all of the elements of the Macintosh interface. You can also use FB II to generate code resources like XCMDs, MDEFs, WDEFs, and extensions.

Program Generator allows you to edit menus; build windows; create application resources; and draw edit fields, controls, picture fields, clickable icons, and scrolling lists. Finished code runs in FB II and can automatically handle text editing, core events, updates, and more. PG may be used as a prototyping tool, a resource editor, or a CASE tool.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; 8 MB hard disk space; System 6.0.5 or later.

T1883Z/A

**\$229.00**

Mainstay

**VIP-BASIC 2.0**

Finally, a visual BASIC development environment for the Macintosh! VIP-BASIC is the ultimate BASIC environment for creating complete, professional, stand-alone Macintosh and native Power Macintosh applications! VIP-BASIC even converts your BASIC code to ANSI standard C for easy portability to other systems. VIP-BASIC gives you everything you need in one box, at a price anyone can afford. And with VIP-BASIC you program the way you want. Work in a traditional bottom-up approach, or design your program's interface first with a powerful, integrated Form editor—complete with plug-in control modules. For the novice Macintosh programmer and the neglected BASIC user, this program is a must-have. Breathe some life into those old BASIC files you created years ago, and watch them scream as Power Macintosh native applications. Buy VIP-BASIC today!

**Requirements**

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68030 or greater processor; 4 MB RAM (8 MB RAM recommended); 12 MB hard disk space; System 7 or later.

T1577LL/A

**\$249.00**

Pictorius, Inc.

**Prograph CPX**

The integrated editor, interpreter, and debugger in a visual, object-oriented environment lets you create and compile robust applications fast.

**Features**

- Fully pictorial OOP language
- Project-oriented structure that supports multiple files
- Seamlessly integrated development and debugging environment
- Interface-building support via Prograph's 150 Application Building Classes (ABCs) and 150 Application Building Editors (ABEs)
- Stand-alone compiler for generating 68K and Power Macintosh, royalty-free, stand-alone, double-clickable applications

Prograph CPX supports calls to C code resources and to unmodified C libraries. Includes a year of free support and updates.

**Requirements**

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68020 or greater processor; 7 MB RAM; 17 MB hard disk space; System 6.0.7 or later; CD-ROM drive.

T1077LL/A

**\$495.00**



## Books and References

For books and references in the Languages and Environments category, see page 52.

## Additional Products

For additional products in the Languages and Environments category, see page 58.

## Apple Developer Catalog Online

*The ADC is now online for browsing and ordering on the World Wide Web. Check out*

<http://www.devcatalog.apple.com>

*anytime for the most up-to-date information and 24-hour ordering—right from your Macintosh.*

*Developer* →

Fortner Research LLC

## KAP Optimizer for Power Macintosh 2.1



KAP Optimizer is a state-of-the-art FORTRAN source code optimization tool now available for the Power Macintosh. KAP Optimizer performs advanced data dependence analysis on your source code. Using the information gained through analysis, KAP restructures your FORTRAN source code to optimize memory management and take advantage of architectural complexity and processor resources. Inefficiencies and bottlenecks are eliminated. KAP Optimizer for Power Macintosh takes advantage of a new, easy to use, graphical user interface (GUI). Say good-bye to memorizing or looking up command lines. Now, just point and click to customize your optimization settings. KAP Optimizer is compatible with any FORTRAN compiler for Power Macintosh.

### Features

- Cut execution time significantly
- Check your programming efficiency
- Gain superior price/performance ratio from your hardware

### Requirements

Power Macintosh or Mac OS-compatible computer with a PPC 601 or greater processor; 16 MB RAM; 4 MB hard disk space; System 7 or later.

T1983Z/A

**\$199.00**

Fortner Research LLC

## LS FORTRAN for Power Macintosh 1.1



LS FORTRAN for Power Macintosh is a full-featured optimizing ANSI FORTRAN 77 compiler with extensions for VAX, Cray, Data General, and Microsoft FORTRAN.

It includes compilers for both Power Macintosh and 68K and is fully System 7.5 compatible. It supports a complete 32-bit programming model and includes MPW, source level debuggers, built-in debugging, free runtime licenses, and virtual memory support. A variety of third-party tools are available separately to customize any FORTRAN environment.

A number of unique diagnostic features are built into the runtime libraries and do not require the use of a separate debugger. For example, an execution-tracing window monitors source file, subroutine name, and line number in real time.

Fortner Research also ships a FORTRAN compiler for the 68K Macintosh. Source code is compatible between these two compilers. Programs originally developed with the 68K version execute four to six times faster by running the same program on a Power Macintosh.

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 5 MB RAM; 15 MB hard disk space; System 7 or later; CD-ROM drive.

T1602LL/A

**\$695.00**

Quasar Knowledge Systems, Inc.

## SmalltalkAgents 2.0

**Version 2.1 Coming Soon!**

SmalltalkAgents (STA) is a sophisticated software development environment featuring a new generation of the Smalltalk language, QKS Smalltalk. STA's dynamic development environment provides enhanced productivity. The development process is dynamic, interactive, and iterative.

The foundation of the QKS Product family is the Agents Object System (AOS), a value-added collection of "components" and "services" embedded in SmalltalkAgents. Features include a Cyberspace engine, DTP/word processing engine, a database collaboration engine, distributed objects, a full-featured compiler, and cross-platform frameworks and components. Components from non-AOS sources can be integrated seamlessly into the AOS system.

### Features

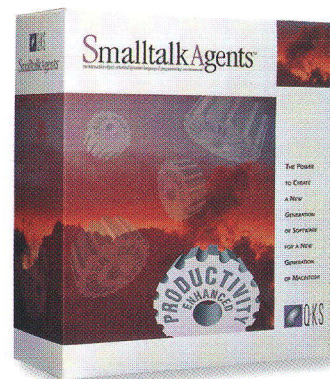
- "Live" direct manipulation of objects—our Dynamic GUI Builder enables "live" real-time creation and manipulation of objects and code.
- Provides full access to the features of the Mac OS and Mac Toolbox just like C/C++ and Assembly.
- External Code Linking Toolkit (ECLT) supports easy linking to non-Smalltalk code resources (C/C++, Pascal, FORTRAN, and Assembly).
- Automatic garbage collection and object typing will free you from tedious memory management and bookkeeping chores.
- Enables increased productivity through a sophisticated database for source code management.
- An Application Delivery Toolkit (ADT) allows you to create royalty-free, stand-alone, double-clickable applications in a matter of minutes.
- STA is architected to transparently support WorldScript and UNICODE international character sets.

### Requirements

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 8 MB RAM; 30 MB hard disk space; System 7 or later.

T1547LL/B

**\$695.00**





Apple Computer, Inc.

## MacsBug

This useful assembly-level debugger offers power, expandability, reliability, and compatibility with System 7. The reference manual includes a wealth of debugging tips and techniques.

### Special User Notes

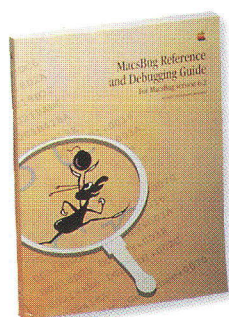
High-level languages, such as C or Pascal, may require the use of a source-level debugger, such as SourceBug.

### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68030 or greater processor; 800 KB RAM; 8 MB hard disk space; System 7 or later.

R0064LL/D

**\$34.95**



Apple Computer, Inc.

## Apple Personal Diagnostics 1.1.3

Now there's an easier way to test the hardware and system software of Macintosh and Power Macintosh computers. Apple Personal Diagnostics is an integrated, easy-to-use software utility that checks and reports on the well-being of your computer. It performs comprehensive diagnostics tests on your system's logic board, hard drive, floppy drive, system software, and display. There's even a unique Automated Diagnostics feature that helps you identify potential problems before they become serious. Apple Personal Diagnostics supports more than 140 Macintosh models, from the Macintosh Plus through the Power Macintosh 9500/132.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 2 MB RAM; System 6.0.7 or later; (Automated Diagnostics requires version 7.0 or later).

M2800Z/C

**\$99.00**

Jasik Designs

## The Debugger V2 & MacNosy Universal Version

This is the debugger of choice for many major Macintosh developers.

### Features

- The Debugger, used for debugging of both 680x0 and Native PowerPC programs
- CoverTest, a program to determine code coverage for QA testing
- MacNosy, a powerful global decompiler
- Source-level debugging for Metrowerks and MPW programs, THINK C projects, OpenDoc parts and CFM Libraries

Other features include high-level symbolic debugging of arbitrary programs or resources (XCMDs, 4-D Externals, etc.) and the ROM, disassembly, viewing of registers, memory, the heap, the stack, global variables, trap, and user call parameters.

Product ships on CD-ROM and includes a Multimedia Training Tutorial.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1.5 MB RAM; 2 MB hard disk space; System 6.0.5 or later; CD-ROM drive.

T0123LL/A

**\$350.00**

Apple Computer, Inc.

## ResEdit

This graphical resource editor lets you create and edit elements of the Macintosh user interface such as menus, windows, icons, dialog boxes, and other standard data structures.

Macintosh programmers and advanced users can quickly create portions of their application's user interface as well as modify an existing interface.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 500 KB RAM; 800 KB hard disk space; System 6.0.2 or later.

M0910LL/D

**\$29.95**

Apple Computer, Inc.

## Chinese Language Kit 1.1.1



The Apple Chinese Language Kit contains everything you need to easily add Chinese

characters to your documents. This language kit supports both simplified and traditional characters and contains a wide variety of Chinese input methods. The included TrueType fonts are fully scalable and can be printed on any Macintosh-compatible printer.

### Features

- Includes two TrueType fonts, plus four additional fonts on CD-ROM
- Supports both simplified and traditional Chinese text entry, editing, and printing

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 5 MB RAM; 8 MB RAM for Power Macintosh; 10 MB hard disk space (17 MB recommended); System 7.1 or later; one or more applications that support WorldScript or that have been localized for Chinese; CD-ROM drive.

M2368Z/C (U.S./Int'l)

**\$189.00**

M2368JA/C (Japan)

**\$189.00**

Apple Computer, Inc.

## Japanese Language Kit 1.2



The Apple Japanese Language Kit contains everything you need to create, edit, and print

documents in Japanese. You can also use the kit to work with files created using KanjiTalk, the Japanese version of the Apple Macintosh operating system, or to run Japanese applications on your Macintosh computer.

### Features

- Japanese text entry, editing, and printing
- Kanji TrueType fonts for high-quality printing

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 5 MB RAM; 8 MB RAM for Power Macintosh; 30 MB hard disk space; System 7.1 or later; one or more applications that support WorldScript or that have been localized for Japanese; CD-ROM drive.

M1648Z/C (Int'l)

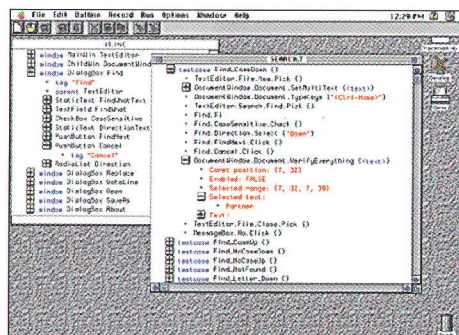
**\$189.00**



Segue Software, Inc.

## QA Partner 3.0 Automated Testing System

Segue's QA Partner for the Macintosh is the only automated software testing solution—object-oriented, language-based and graphical user interface (GUI)-aware—with a logical testing approach robust enough to cope with the complexity of GUI applica-



tions. QA Partner is the only product of its kind on the market today that lets you:

- Create effective automated tests
- Begin testing at any phase of the application's lifecycle
- Plan and manage the testing process
- Easily maintain tests to reflect application changes
- Reuse the same test across multiple releases and more than 20 platforms and operating systems
- Achieve true unattended testing

Testing your Macintosh applications with QA Partner is also easy. Its Visual 4Test scripting language simplifies the scripting process for less experienced users while providing robust test capabilities for reuse across multiple GUI platforms.

Plus, QA Partner's exclusive Recovery System helps you achieve true unattended testing for creating the highest level of software quality—on time.

Put QA Partner to work for your Macintosh applications today. With QA Partner, you'll be well on your way to improving software reliability, reducing development costs and decreasing the time required to deploy quality software applications.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; 5 MB hard disk space; System 7 or later.

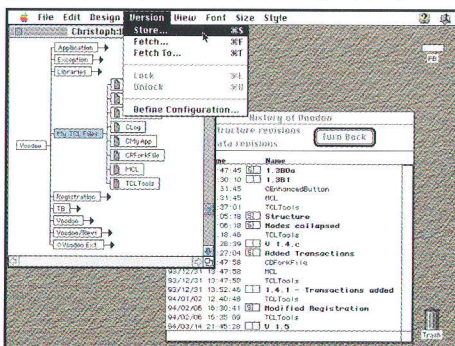
T1877Z/A

**\$3,560.00**

Uni Software Plus GMBH

## VOODOO 1.7

VOODOO is the ultimate version control solution you have been waiting for for a long time. It is a stand-alone version control tool with a neat graphical user interface offering many features for the simple and clear management of projects in which files evolve in numerous versions. VODOO manages not only variants and revisions of single files, but also of entire software projects (multiple files, multiple users, multiple variants, access rights, project



structure, project history, etc.). VODOO uses delta storage with amazing compression rates of about 95% (up to 99%). It is not restricted to text files but works for files of arbitrary type (desktop publishing documents, databases, libraries, applications, etc.). VODOO is suitable for small (one person) projects up to large projects with many developers. A flexible locking mechanism ensures data integrity when several developers work on the same project.

### Features

- Stand-alone tool with graphical user interface
- Simple and clear management of variants and revisions of entire projects (not only single files)
- Efficient delta storage (95% savings and more) for files of arbitrary type (MS Word, Quark XPress, Filemaker Pro, 4th Dimension, etc.)
- Administrate users with hierarchical access rights
- Recording of the complete project history (who made which changes, when, and why)
- Suitable for all sorts of projects (software development, documentation, design, CAD, etc.)

### Enhancements in Version 1.7

- Drag-and-Drop support enables easy integration with other tools
- Locking of files using the Finder's "Locked" flag
- Improved delta algorithm (up to six times faster, uses temporary memory)
- Printing of the project history supported

### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; 600 KB hard disk space; System 6.0.4 or later.

### Single License

T1750Z/B **\$229.00**

### 2 pack

T1931Z/A **\$359.00**

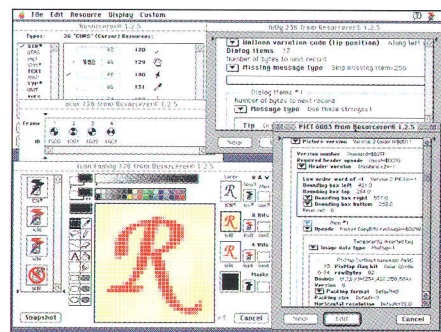
### 5 pack

T1932Z/A **\$799.00**

Mathemaesthetics, Inc.

## Resorcerer

Winner of the Eddy Award for Best New Developer Tool of 1993, Resorcerer is the resource editor for the Macintosh wizard. *MacUser* magazine called it "without a doubt, the premiere resource editor on the Mac."



Relied upon by developers, interface designers, and localizers around the world, the award-winning Resorcerer is a powerful, 32-bit, safe, easy-to-use, and well-supported resource editor for Macintosh and Mac OS-compatible personal computers. Engineers at every major Macintosh software company now enjoy Resorcerer's superior benefits.

Filled with time-saving features to make you more productive, Resorcerer lets you easily browse all resources using just one file window; search all resources for specific text matches; make global attribute changes, including changing resource types, with full undo; build resource files from other resource files automatically; and lots, lots more. Dedicated editors for dialogs, menus, color icons, pictures, strings, and other standard resources all work smoothly and safely.

Whether you have to parse a picture, debug a data fork, design and try out Balloon Help, create anti-aliased icons, design and edit a custom resource with 40,000 fields, create C source code to run a dialog, find every reference to a control, change the structure of existing custom resources, or any of hundreds of other resource-related tasks, Resorcerer's magic will quickly save you time and money.

### Features

- Hundreds of standard resource types supported
- 120 TMPL data field types
- File comparison, text and hex searching
- Editable clipboard, screen copying
- All editing safely done in private memory
- 500-page manual, free tech support from manufacturer

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1.5 MB RAM; 1.5 MB hard disk space; System 6.0.5 or later. For educational discounts, call 1-303-440-0707.

T0437LL/A

**\$255.00**



Adianta, Inc.

## The Memory Mine

The Memory Mine is a stand-alone tool for monitoring heaps and stress testing applications (Purge, Compact, and Zap, as well as on-the-fly memory allocation). It allows quick, non-intrusive identification of problems with memory allocation and memory architecture.

Heap corruption is flagged when it occurs; 16 different tests for heap corruption are performed on each monitoring cycle. Memory leaks are seen as they occur. Heap data can be logged manually or automatically. Source code is not needed to monitor heaps, and no special set-up is required.

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 650 KB RAM; 320 KB hard disk space; System 7 or later.

T1781Z/A

**\$99.00**

## Books and References

For books and references, refer to the Books Section beginning on page 48.

Onyx Technology

## QC 1.2

QC is a stress-testing tool that checks code during runtime for a wide variety of serious errors. With QC many intermittent errors are instantly reproducible. There are over 15 stressful tests including heap check, purge, scramble, handle/pointer validation, dispose/release checks, write to zero, de-reference zero, free memory invalidation, and block bounds (overrun) checking. QC is extremely easy to use and sports an API for programmers who want precise control over testing. It already is used by many leading software companies. This version is PowerPC native.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM; 2 MB hard disk space; System 7 or later.

T1874Z/A

**\$99.00**

Bare Bones Software, Inc.

## SoftPolish 1.2

**NEW  
PRODUCT**

SoftPolish is the essential tool for software quality assurance. It can help developers identify inconsistencies with Apple's user interface guidelines, misspelled words, missing resources, and other mistakes; and, it helps put the finishing touches on software distribution packages prior to release. SoftPolish is ideal for sanity checking software throughout the development process.

### Features

- Spell checks dialog boxes and other resources, as well as file and folder names
- Performs resource validation by examining resource types, internal consistency, system software compatibility, resource sizing, and resource links
- Provides an easy means to set file and folder dates, remove unwanted resources, eliminate empty resource forks, list version resources, and warn of debugging traps or debugger names in 680x0 code

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB of RAM; 2 MB hard disk space; System 7 or later (System 7.5 recommended); CD-ROM drive.

T1988Z/A

**\$99.00**

Bare Bones Software, Inc.

## BBEdit 4.0

**NEW  
VERSION**

BBEdit 4.0 is the popular and critically acclaimed text editor for use by HTML authors, programmers, and anyone else who needs plain text editing and manipulation with maximum performance and useability. Its integrated HTML editing tools have made it the weapon of choice for HTML authors and Webmasters all over the world, and its power and ease-of-use make it suitable for anyone from novice to professional.

### Features

- Internet Config system is supported to manage interaction with Internet tools such as Web browsers and ftp clients
- Native PowerPC code speeds editing, searching and transformation of text files
- HTML tools (included) speed the composition of home pages and other WWW content

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 730 KB RAM; 2 MB hard disk space; System 7 or later (System 7.5 recommended); CD-ROM drive.

T1545LL/E

**\$99.00**

Nisus Software, Inc.

## QUED/M 3.0

**NEW  
VERSION**

The text editor you've used and loved for over 10 years is now pumped up with improvements and hot new features. This new version is PowerPC native and includes Symantec and THINK Project Manager support, Metrowerks CodeWarrior support, html macros, System 7.5 drag-and-drop, plus a powerful new programming dialect, dynamic coloring of C/C++ keywords and comments, non-contiguous selection, file comparison and unlimited undos. It also includes Celestin Company's APPRENTICE 4 free! That means when you order QUED/M 3.0 you get over 600 megabytes of source files and utilities to help you code better and faster.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; 1 MB hard disk space; System 7 or later.

T1720Z/A

**\$89.00**

# Missed WWDC?



**Now you can  
order audio  
and video  
tapes of all the**

**May 1996 WWDC seminars!**

**Tapes are available directly  
from GT Recording. Please see  
the insert between pages 48  
and 49 for more details.**



Casady & Greene, Inc.

## Conflict Catcher 3



The industry standard in startup file management and conflict identification, Conflict Catcher 3 manages extensions, control panels, System Folder extensions, Apple menu items and fonts. For developers, system/hardware reports can include all the hexadecimal code of system traps of startup files listed by either file or trap name.

### Features

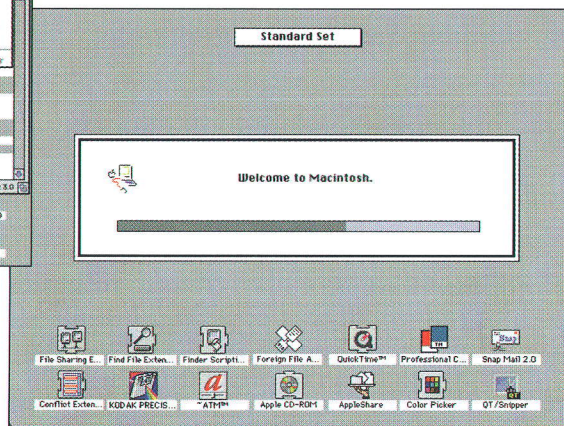
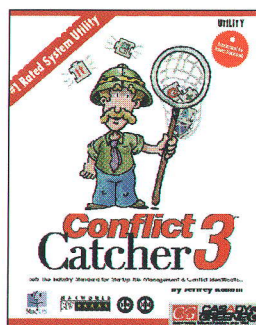
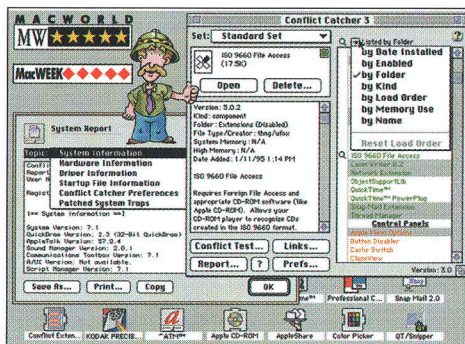
- Identifies startup file conflicts
- Reduces Beta cycle delays
- Enhanced link and set features
- Scans for damaged resources
- System 7 native/savvy

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 512 KB RAM; 400 KB hard disk space; System 7 or later.

T1680LL/A

**\$64.95**



Bowers Development Corp.

## AppMaker CD 4

AppMaker makes it faster and easier to develop the user interface for a Macintosh application. Just point and click to design your application, then AppMaker creates resources and generates excellent source code.

AppMaker supports most development environments including Metrowerks CodeWarrior C or C++ with PowerPlant, Symantec C++ with TCL 2.0, THINK C, THINK Pascal, Metrowerks Pascal, Language Systems Pascal, and MPW C or C++ with MacApp 3.1. Add-on products support FORTRAN. The generated code uses Universal Headers to provide Power Macintosh compatibility.

Beginners use AppMaker to learn object-oriented and Macintosh Toolbox programming techniques; experts use it to increase productivity. It saves so much time, it's like having your own assistant programmer working for you.

One-year subscription on CD is included.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 3 MB RAM; 5 MB hard disk space; System 7 or later; Drag and Drop; Color QuickDraw; CD-ROM drive.

T0322LL/H

**\$299.00**

Seapine Software, Inc.

## TestTrack 1.0

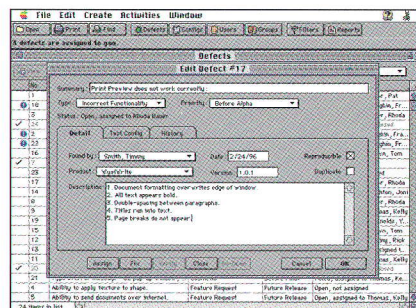


Discover the tool more and more of today's top Macintosh developers are using to track their bugs, feature requests, and customer information—TestTrack.

TestTrack automates the tedious and error-prone process of tracking bugs by hand. It also eliminates the need to create a custom solution using general purpose database tools such as 4D and FileMaker Pro.

TestTrack links engineers, testers, managers, even tech writers together so no one falls out of the loop. Team members are notified automatically when defects are assigned to them, guaranteeing communication and ensuring efficient work flow.

Use TestTrack's powerful filtering feature to see only the information of interest to you. For example, create a filter to list only high-priority problems. Create another to list only feature requests for the next release.



Do you want to know who reported the most bugs, how many are still open, or how much time a user spent fixing bugs? This information and more is just a click or two away. How about a bug's history—who found, fixed, and verified it—all of the details are available.

TestTrack makes reporting easy—just point, click, print and read. Customize reports to list what you need. Save reports in a variety of file formats.

TestTrack comes with a stand-alone bug reporter you can give your customers and beta-testers. When they find a bug or need a feature, they can easily create a file you can load into TestTrack.

TestTrack is ideal for all Macintosh developers—from consultants to commercial software and hardware developers.

### Features

- Ready to use out of the box
- Single- and multiple-user support in one package
- Automatic notifications
- Customizable security
- Easy reporting
- Stand-alone bug reporter

### Requirements

Macintosh or Mac OS-compatible with a 68020 or greater processor; 2 MB RAM; 2 MB hard disk space; System 7.0 or later; AppleShare-compatible file server required for multi-user access.

T1984Z/A

**\$129.00**



EveryWare Development Corp.

## Tango

Tango is the premier Intranet Rapid Application Development (IRAD) tool that integrates your Web server with databases such as Oracle, Informix, Sybase, SQL Server, Butler SQL, and FileMaker Pro—without writing HTML, SQL or CGI code.

### Features

- ODBC data source support
- Intuitive drag-and-drop interface
- Full support for database joins
- Support for global variables
- Support for all HTML form field types
- IF...THEN processing
- Access to all standard CGI parameters

### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68020 or greater processor; Tango Editor—4 MB RAM; Tango.acgi—2 MB RAM; System 7.5 or later.

**Tango ODBC**  
T1973Z/A **\$995.00**

**Tango for Butler SQL**  
T1972Z/A **\$349.00**

Quarterdeck Corporation

## WebSTAR

**NEW  
VERSION**

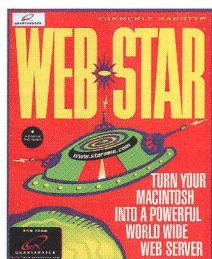
Now you can create and serve your own World Wide Web site directly from your Macintosh! Within minutes, you'll be on the Internet or your internal network serving your home page, graphics, and even QuickTime movies. WebSTAR can publish information stored in your 4th Dimension, Butler, or Claris FileMaker Pro database, and it's faster and more secure than many UNIX servers.

WebSTAR includes Adobe PageMill, free ftp and Gopher servers, sample home pages, HTML editors, and lots of demo add-on software. Start serving your site today with the application that *MacUser* called the Software Product of the Year!

### Features

- Four times faster than MacHTTP
- Includes free Internet Publisher CD-ROM
- Supports thousands of connections per hour
- Remote administration
- Faster and more secure than many UNIX servers

T1909LL/B (U.S. only) **\$499.00**



**Adobe  
PageMill  
now included  
FREE!**



Symantec Corporation

## Symantec Café

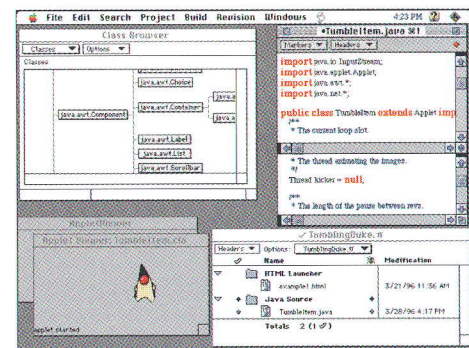
**NEW  
PRODUCT**



With Symantec Café, it's easy to develop Java applications and applets, and quickly add dynamic, interactive functionality to your World Wide Web pages. Tutorials and sample applets help you learn Java fast; a fast native Java compiler and full-featured environment let professional developers create Java applets quickly.

With Café and Symantec's award-winning, integrated development environment, you can create Java applets and applications that run on Macintosh, Windows, and UNIX systems. Café contains a fast native Java compiler and a full suite of integrated tools for Java development, including a project manager, an editor, and a class browser coupled with the Java applet viewer.

The native Java compiler runs up to 13 times faster than Sun's Java compiler. The full-featured project management system helps you develop complex projects, including support for nested subfolders. The source editor simplifies development with full-color font, size, and style syntax and keyword highlighting; the code editor supports drag-and-drop text; the class browser makes it easy



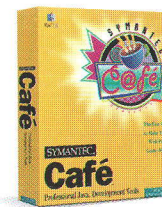
to browse and edit methods and data, and work with Java classes; and Café is fully scriptable and recordable, so you can save time by automating routine tasks with AppleScript.

### Requirements

Power Macintosh, Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 16 MB RAM; 30 MB hard disk space; System 7.0 or later; CD-ROM drive.

T1961Z/A

**\$99.95**



## ListSTAR

ListSTAR broadcasts messages to customers and colleagues through mailing list discussion groups and E-Mail-On-Demand systems. Discussion groups allow you to sponsor e-mail lists to discuss ideas with people on the Internet or your internal network. E-Mail-On-Demand can be used to provide instant information, like Fax-On-Demand. An e-mail rules engine performs these automated services which once required a UNIX or mainframe computer. Make your Macintosh an e-mail hot-spot on the Internet!

ListSTAR is available in two versions: ListSTAR SMTP for a multi-threaded, high-performance e-mail engine, or ListSTAR POP for personal E-Mail-On-Demand services.

### Features

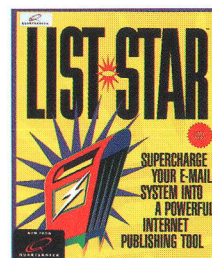
- Automatically serves binary files, messages, or adds users to list
- Easy menu navigation of rules
- Works with WebSTAR for friendly Web interface
- FREE Internet Publisher CD-ROM
- Includes sample scripts

### ListSTAR SMTP

T1910LL/A (U.S. only) **\$499.00**

### ListSTAR POP3

T1911LL/A (U.S. only) **\$199.00**



## WebSTAR SSL Security Toolkit

WebSTAR SSL Security Toolkit adds authentication and encryption capabilities to a WebSTAR-based Web site. Using the SSL (Secure Sockets Layer) protocol, WebSTAR SSL Security Toolkit enables secure transactions between the WebSTAR SSL server and SSL-compliant web browsers.

### Features

- Enables encrypted transactions for online commerce
- Includes set-up utility to help create public/private keypairs and register digital IDs
- Support for industry standard SSL security protocol developed by Netscape

### Note

Requires digital ID registration through Verisign Corp.

T1913LL/A

**\$995.00**

### Requirements

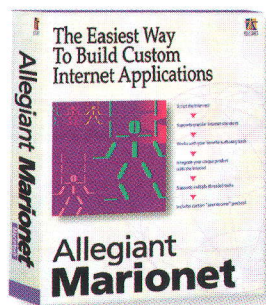
Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 4 MB RAM; 1.5 MB hard disk space; System 7 or later; MacTCP (provided) or Open Transport; TCP/IP connection to Internet or LAN.



Allegiant Technologies, Inc.

## Marionet 1.0

Marionet is the first complete, script-level interface to the Internet for the Macintosh. It gives developers and power users the ability to build custom Internet solutions using popular authoring tools or



productivity applications by providing simple, English like commands for all major Internet protocols. Marionet takes care of all the complexity of

communicating with the Internet.

Build custom Internet browsers and automation tools, or incorporate automated Internet access into existing products such as multimedia content, CBT, education, database front-ends — even popular productivity tools such as Claris FileMaker Pro.

Marionet works similarly to QuickTime. Simply put the Marionet file into your System folder, and it is available to any authoring tool that supports

external commands (XCMDs) or any application that supports attachable AppleScripts. Marionet includes all necessary XCMDs, documentation and samples for use with SuperCard, HyperCard, FileMaker Pro, and any application that supports attachable AppleScripts or XCMDs.

Marionet supports all major Internet protocols: World Wide Web, newsgroups, e-mail, ftp, domain name service, and gopher. In addition, Marionet has its own protocol named "Chat" that allows you to build completely custom collaborative and workgroup solutions using the Internet as a worldwide network. Marionet works in both synchronous and asynchronous modes, and supports common security measures within its supported protocols.

### Features

- Web page maintenance tools
- Automated link management and verification tools
- Search "agents"
- Automated newsreaders
- E-mail reading/distribution interfaces
- ftp utilities
- Workgroup and collaborative utilities
- Automated e-mail response systems

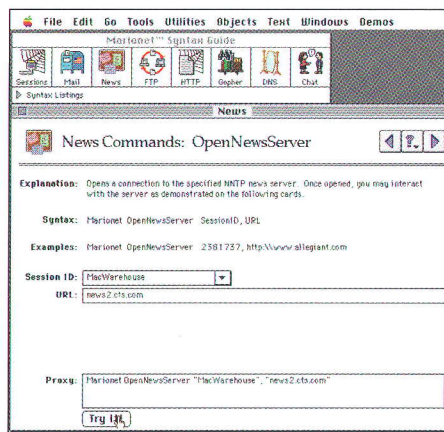
- ftp site maintenance tools
- Batch processing tools
- Firewall support (Proxy, SOCKs, and Passive ftp)
- And much, much more

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 750 KB RAM; 1-4 MB hard disk space; System 7.1 or later; and a TCP/IP connection to the Internet.

T1928Z/A

**\$149.95**

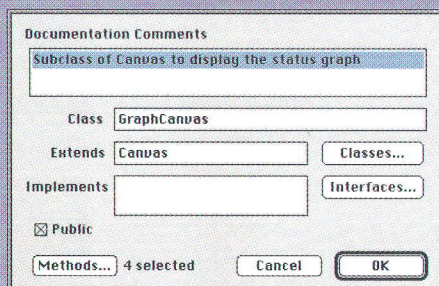


## Try This!

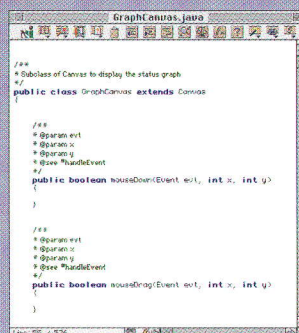
# Wizards Simplify the Creation of New Java Subclasses

Roaster Wizards help you create subclasses by including stubs for all the methods you want to override. This means fewer mistakes because of incorrect parameter lists and quicker generation of code.

1. First, in a new editor window, select 'New Class' from the Wizard tool.



2. Then, enter the specifics about your new class, including what class your are extending. Also in this dialog, select (from a context sensitive scrolling list) the methods you want to override.



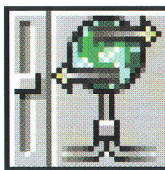
3. Accept the dialog and your new subclass, including stubs for all the overridden methods, is ready to go!

For more information on Roaster, see ad on page 16



## Apple Computer, Inc.

## TCP/IP



Macintosh computers can now communicate with other computers using industry-standard TCP/IP protocols with the addition of MacTCP, a component of the TCP/IP Connection Kit for Macintosh.

You can create TCP/IP applications for the Macintosh by using the MacTCP

Developer's Kit, which contains object code libraries and associated files for C development. The MacTCP Developer's Kit is available on E.T.O. (see page 15).

Single-user packages include

- TCP/IP protocols implemented as drivers for the Macintosh operating system, so that multiple applications can access TCP/IP services simultaneously
- MacTCP stack and driver software
- MacSNMP Client
- Macintosh, TCP/IP and Network agents
- MIBs and TCP/IP Connection User's Guide

TCP/IP Administration for Macintosh contains the complete TCP/IP Connection product; MacTCP Admin and MacSNMP Admin software; MacTCP Administrator's Guide; MacSNMP Administrator's Guide; TCP/IP Administration; Overview and Installation; and the TCP/IP Connection User's Guide.

## Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 2 MB RAM; System 7 or later. Installation and use of MacSNMP (included with TCP/IP Connection for Macintosh) requires at least 4 MB RAM and System 7 or later. Use of MacTCP on a LocalTalk network requires a DDP-IP gateway, such as Shiva Corporation FastPath 5 or a Cayman Systems GatorBox CS. Use of MacTCP on an Ethernet or Token Ring network requires a Macintosh computer with the appropriate network interface.

## TCP/IP Connection for Macintosh 2.0.4

M8113Z/B **\$59.00**

## 20-user license extension

This license extension contains no software.

M8115Z/B **\$69.00**

## TCP/IP Administration for Macintosh 2.0.4

M8114Z/B **\$199.00**

## Apple Computer, Inc.

## Apple Internet Connection Kit 1.1



Apple Internet Connection Kit brings together all the applications you need to access the Internet directly. Chat with people around the world, exchange e-mail with more than 30 million users, visit World Wide Web sites, and download files right to your desktop. Take advantage of Internet resources and participate in a wide variety of electronic communities—all with the same full Internet access that major universities and corporations have. Registering with an Internet provider is easy—Apple's Internet Dialer application helps you sign up instantly. Apple Internet Connection Kit also provides all the help (via Apple Guide) and documentation you need to venture on-line, even if it's your first time.

## The Apple Internet Connection Kit includes

Netscape Navigator, Apple Internet Dialer, QuickTime VR Player, Fetch, Claris em@iler Lite, NewsWatcher, Adobe Acrobat Reader, and Aladdin Stuffit Expander.

## Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM (12 MB recommended); 21 MB hard disk space; System 7.5 or later; CD-ROM drive.

## Note

Product available through catalog to U.S. and Canadian customers only. Customers located outside the U.S. and Canada should contact the manufacturer for resellers in their area.

## Single User

M4276LL/B (U.S. and Canada only)

**\$44.95**

## Nisus Software Inc.

## Nisus Writer 4.1



Well known for core text processing and graphics features, Nisus Writer 4.1 includes unlimited undos, noncontiguous selection, customizable keyboard menu equivalents, complete graphics creation, and an especially powerful macro language for automating repetitive tasks.

Nisus Writer 4.1 introduces multimedia capability, making it practical to produce true multimedia, multilingual documents for tasks like proof reading or on-the-job training. New features include HTML Authoring Tools for Internet publishing, recorded Sound Annotation, Text-to-Speech in five languages, Publish and Subscribe, QuickTime, Apple events, Frontier Scripting, and PowerTalk. As an added value, the Nisus Writer 4.1 package contains special versions of Tycho Tablemaker and the full MathType Equation Editor, which are accessible from within Nisus Writer.

## Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 3 MB RAM; 7 MB hard disk space; System 7 or later.

T1873Z/A

**\$129.00**

## Adobe Systems, Inc.

## Adobe PageMill 1.0

Adobe PageMill Web-page authoring software addresses the needs of non-technical people who want to create or maintain content on the Web. You write your pages in what looks and feels like a normal word processor—only this one knows about the Web. Your pages show up exactly as they would in a Web browser. Creating links is easy. The built-in Preview Browse mode even lets you test your pages without leaving the program.

## Features

- Edit Web pages directly, without ever seeing HTML
- Test pages with the integrated Preview Browser
- Create links without typing URLs or path names
- Insert and manipulate images within the same program
- Create forms by dragging and dropping
- Keep frequently used elements in a multi-page pasteboard

## Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 3 MB RAM (4.5 MB for Power Macintosh); 3 MB hard disk space; System 7.1 or later; color display.

T1814Z/A

**\$99.00**

## Adobe Systems, Inc.

## Adobe SiteMill 1.0

Adobe makes Web publishing productive, powerful, and easy. Adobe SiteMill maintains correct links for a web site, automatically repairing all links so that they point to the correct location. It completes, in seconds, a task that would take hours for a larger site—and without any user intervention.

## Features

- Shows resources, page titles, and folders using Site View
- Shows warnings for unreachable or unused resources
- Fixes links automatically
- Enables link creation
- Shows bad links, and allows one-step correction using Error View
- Shows references to external Web sites, and allows global renaming of external links using External View

## Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 3 MB RAM (4.5 MB for Power Macintosh); 3 MB hard disk space; System 7 or later; color display.

T1828Z/A

**\$199.00**



## Heizer Software

**CompileIt!**

CompileIt!, the first HyperTalk compiler, is a complete development system for the creation of XCMDs and XFCNs.

**Features**

- Expand the capabilities of your environment by using CompileIt! and the ROM Toolbox extensions.
- Increase the speed of routines written in HyperTalk by turning scripts into externals.
- Protect sensitive code from prying eyes because your code is now compiled.
- Easily learn Macintosh programming by exploring the ROM Toolbox.

It includes DebugIt!—a valuable source-level debugger for externals created with CompileIt!

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 1 MB RAM; 2 MB hard disk space; System 6.0.5 or later.

T1529LL/A

**\$149.00**

**USE  
SUPERCARD  
WITH COMPILEIT!**

*to compile SuperTalk  
scripts into fast XCMDs.*

## Heizer Software

**WindowScript**

WindowScript is the ultimate tool for designing Macintosh user interfaces using HyperCard. In the past, each HyperCard stack and Macintosh application had its own distinctive interface objects. Now, WindowScript brings the true look and feel of the Macintosh interface to HyperCard.

**Features**

- AppleScript support
- All kinds of dialog boxes, windows, and floating palettes
- Scrolling windows
- Scrolling lists of text, icons and pictures
- QuickTime movies—with or without controller
- Custom and standard menus and popups
- Color pictures, including scrolling pictures
- Icons, including color and Finder icons
- Text fields with mixed fonts, styles, sizes, even color and group text
- Standard radio, checkbox, and round rectangular buttons
- Graphic tools for drawing lines and boxes

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 2 MB RAM; 2 MB hard disk space; System 6.0.5 or later.

T1530LL/A

**\$149.00**

## PreFab Software, Inc.

**PreFab Player**

PreFab Player is a faceless background application (similar to a system extension) that lets your scripts query and control otherwise non-scriptable applications, desk accessories, and

control panels. Player adds verbs that directly manipulate the Macintosh user interface: choose from menus and pop-ups, select radio buttons, type text, determine the name of the frontmost window, the state of a checkbox, etc. Balloon Help identifies non-standard dialog items.

Player Runtime offers a simple, inexpensive way to distribute scripts and updates.

With Player, developers can now use a standard scripting system for automated testing; system managers and consultants can fill the gaps in corporate solutions; multimedia creators can batch process their favorite tools; and power users can automate tedious, dull, and time-consuming tasks.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 300 KB RAM; 200 KB hard disk space; System 7 or later; AppleScript or Frontier.

T1876Z/A

**\$95.00****Note**

Includes one Runtime license; additional Runtime licenses are \$25 each and are available from the manufacturer.

## Heizer Software

**Double-XX**

If you're looking to move beyond XCMDs and XFCNs, Double-XX lets you build stand-alone utilities, Apple event servers, application prototypes, front end applications and more.

Developed by the author of CompileIt!, Tom Pittman, Double-XX is an application shell with a HyperTalk interpreter.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 2 MB RAM; 2 MB hard disk space; System 6.0.5 or later. Applications created with Double-XX do not require HyperCard.

T1531LL/A

**\$149.00**

## Novell, Inc.

**AppWare 1.2**

If you're a corporate or commercial software developer, AppWare is the rapid application development tool you need. AppWare is a fifth-generation language (5GL) tool that enables you to graphically construct network applications using prebuilt software components.

You can easily build applications with database access, communications and multimedia capabilities, and an easy-to-use GUI. Just visually select and arrange the prebuilt software components called AppWare Loadable Modules (ALMs).

ALMs contain all the code you would normally write yourself, and they can be reused in other applications. ALMs can range from client/server connections and multimedia engines to accessing NetWare operating systems services such as Directory, Services, and Bindery.

AppWare is available on the Macintosh and Microsoft Windows platforms. Applications you create can be easily ported from one platform to the other.

**Requirements**

Macintosh: Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 6 MB RAM; 10 MB hard disk space; System 7 or later; CD-ROM drive.  
Windows: IBM or IBM-compatible computer with a 80386 or greater processor; 4 MB RAM; 13 MB hard disk space; Microsoft Windows 3.1 or later; CD-ROM drive.

T1738Z/A

**\$199.00**

## Full Moon Software

**ScriptWizard 1.5**

ScriptWizard 1.5 is the latest version of the best-selling script editing and debugging tool for AppleScript.

ScriptWizard makes life easier for scripters by emphasizing features that speed script development. Some of the most significant enhancements to your productivity include the ability to single-step scripts (true statement-level stepping, with the currently executing line highlighted in the script editor window), watch property and global variable values as scripts execute, jump instantly to frequently used places in a script, find and replace text, use a menu shortcut to open frequently-referenced application Dictionaries, and browse a consolidated Dictionary of all installed scripting additions.

Other new features in version 1.5 include faster drag-and-drop text editing, and support for MPW Projector/SourceServer. The product is native for both 68K and PowerPC-based Macintosh computers.

**Requirements**

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68030 or greater processor; 2 MB RAM; 2 MB hard disk space; System 7.1 or later.

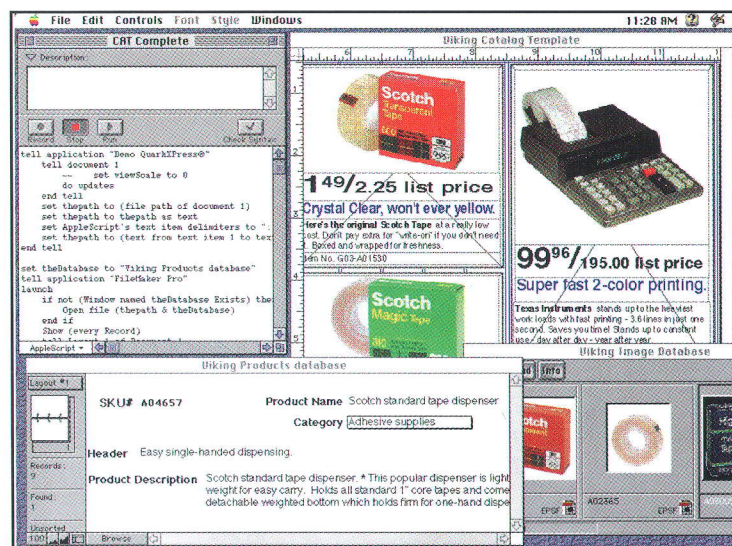
T1578LL/B

**\$89.00**



Apple Computer, Inc.

## AppleScript Software Development Toolkit 1.1



This is the complete AppleScript package for commercial developers who want to make their applications scriptable. By building AppleScript support into your applications, you increase the value of your product to your installed base of customers. Users can customize your application for their specific needs and can generate scripts simply by recording user actions.

language, system software extension, and script editor

- FaceSpan 1.0, the interface processor from Software Designs Unlimited Inc. which provides the look and feel of professionally engineered Macintosh applications
- Development tools, sample code, and electronic documentation on CD
- Finder Scripting software that lets you control standard Finder operations

The AppleScript Software Development Toolkit includes the following components:

- AppleScript lan-

guage, system software extension, and script editor

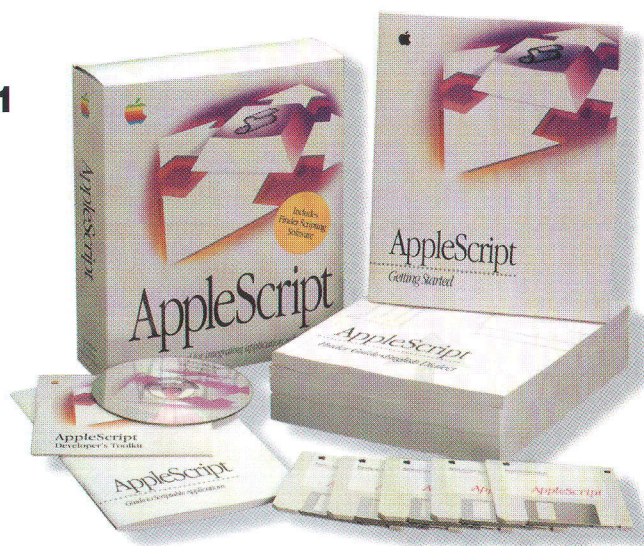
- FaceSpan 1.0, the interface processor from Software Designs Unlimited Inc. which provides the look and feel of professionally engineered Macintosh applications
- Development tools, sample code, and electronic documentation on CD
- Finder Scripting software that lets you control standard Finder operations

- Developer's redistribution license for AppleScript System software extension and FaceSpan runtime code

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM; 5 MB hard drive space; System 7 or later; and a CD-ROM drive.

R0175Z/C

**\$49.00**

Digital Technology International

## FaceSpan 2.0.1

FaceSpan 2.0.1 is an extensible Rapid Application Designer—a significant upgrade of version 1.0, the interface builder that ships with the AppleScript Developer's Kits.

Design simple or sophisticated applications with professional-quality interfaces using the standard Macintosh look and feel—or develop your own interface.

FaceSpan 2.0.1 creates focused solutions by combining high-powered interface elements with the power of AppleScript or any OSA language.

You can integrate scriptable applications such as Excel, FileMaker, FoxPro, Great Plains Dynamics, QuarkXPress, HyperCard, SAS JMP, and Pagemaker.

Your FaceSpan applications can include any number of windows, dialogues, and menus; in them display multi-column tables, scrolling lists, movies, pop-up menus, icons, and more. You can even program custom objects using Pascal or C.

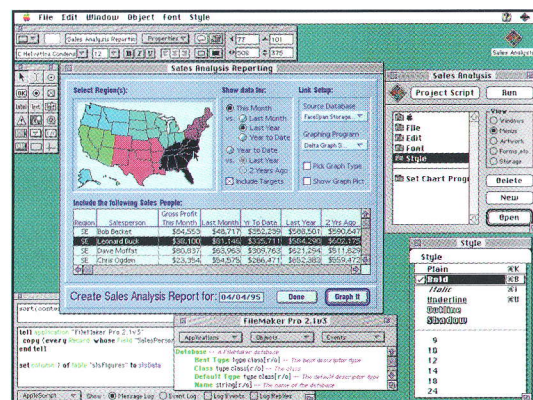
Help your customers be productive faster; conserve your development time while dragging and

dropping the functionality that your clients are looking for.

FaceSpan was a finalist for the 1995 *MacUser* Eddy award for Best New Utility. *Macworld* magazine (Nov. '95) said, "No scripter's workshop should be without FaceSpan." *MacUser* (UK edition) writes, "FaceSpan is a joy to use and shows how powerful AppleScript is... Buy a copy now."

### Features

- Integrate any of over 300 scriptable applications
- Prototype any type of application at any level of detail
- Produce stand-alone applications
- Receive definitive documentation, tutorials, 50 examples, and royalty-free run-time license with 2.0.1



### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68020 or greater processor; 1.5 MB RAM (8 MB recommended); 7 MB hard drive space; System 7.0.1; AppleScript 1.1 (included).

T1179Z/A

**\$199.00**



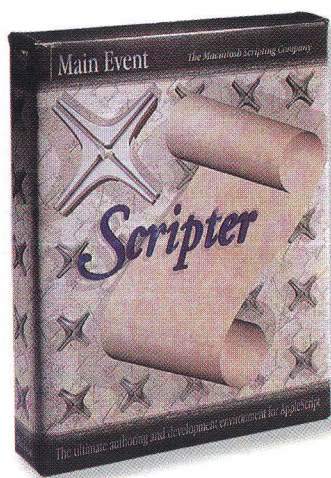
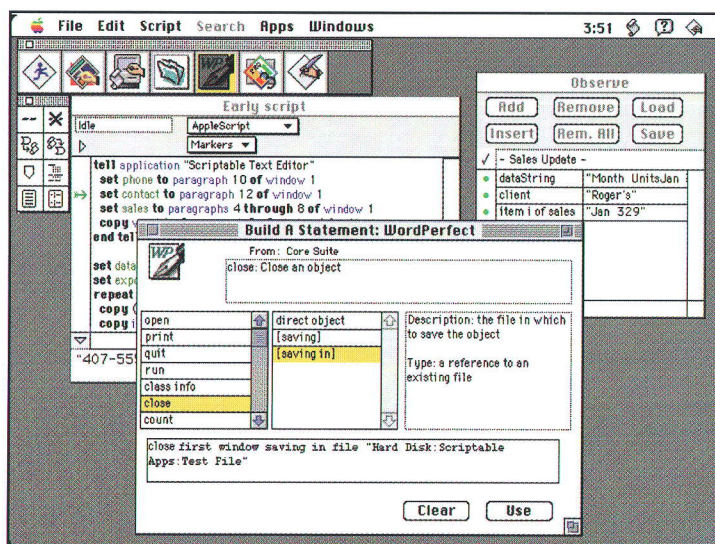
## Main Event Software

## Scripter 1.0.1

For professionals, for novices, for webmasters, for solutions providers, there's only one serious choice—Scripter.

The ultimate authoring and development environment for AppleScript. From Main Event, the Macintosh scripting company.

Scripter is at once the most powerful, feature-packed, and easiest-to-use AppleScript editor and debugger.



## Script with Power

Scripter sports capabilities that have been carefully selected and crafted to work together with AppleScript to create a truly unique scripting experience. If you haven't used Scripter before, get the best-selling AppleScript authoring tool today and enjoy over 40 features, such as:

- The deepest script debugging tools available! Only in Scripter can you watch local variables, change variable values and fix problems while you step through a script, and trace your steps.
- Engineered specifically for the AppleScript language: useful for multi-application scenarios; integrates with FaceSpan, HyperCard, and other applications
- Extended editing capabilities: drag-and-drop editing; six-function find-and-replace; navigation markers; script code library collection facility
- Superior access to application vocabularies: point-and-click assembly of commands and object specifications; command window for experimentation
- Shortcuts: many time-savers for faster scripting

Scripter is the natural companion to AppleScript. Don't write scripts without it!

## Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM (12 MB or more recommended); 1 MB hard disk space; System 7 or later; and AppleScript.

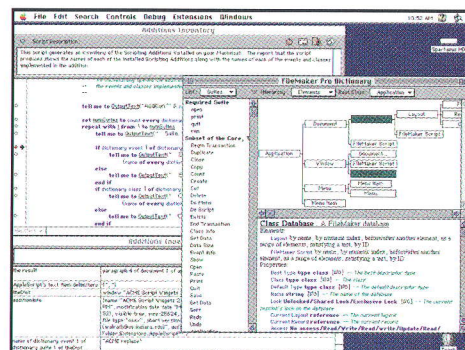
T1668LL/A

\$199.00

## Late Night Software Ltd.

## Script Debugger 1.0

Script Debugger is a powerful and flexible AppleScript authoring tool that makes it easy for novice and experienced script writers to get the most from AppleScript. With a dictionary browser second to none, Script Debugger offers more than 30 features including:



- True single-step execution of all AppleScript scripts
- A powerful scripting environment that includes Drag and Drop editing
- PowerPC Native
- Fully scriptable and attachable

As a bonus, you receive two valuable pieces of software with your Script Debugger purchase—the *LNS Scripting Additions*, a collection of more than 70 new AppleScript commands, and *Scheduler*, a utility that allows you to launch scripts at pre-determined times.

## Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68020 or greater processor; 2 MB RAM; 3 MB hard disk space; System 7 or later; Color QuickDraw.

T1759Z/A

\$129.00

COMING SOON  
Scripter 2.0!

- **Handler debugging:** Debug your applets and FaceSpan handlers without modifying your scripts.
- **Applet simulation:** Debug interactively live interapplication messages destined for a script application or AppleScript CGI originating from your Web server or another application.
- **Live editing:** Debug script applications and CGIs in their normal environment. You won't have to modify your Web pages or your CGIs.
- **Object map:** Explore a graphical view of the class hierarchy of scriptable applications.
- **And, a \$59 value, FREE with Scripter,** ScriptBase, the AppleScript object database: Store frequently used values and scripts in a central place; share your data between scripts; access ScriptBase directly from Scripter.

NOTE: Will include development version of ScriptBase. Inexpensive distribution licenses for ScriptBase will be available from Main Event.

## SPECIAL BUNDLES

Now, your choice of complete AppleScript development environments at special prices. **AppleScript** and **FaceSpan** are bundled with either **Scripter** or **Script Debugger** so you can pick the combination you want.

The **AppleScript Software Development Toolkit** is the cornerstone of both solutions bundles. With it, you can create scripts and integrate scriptability into your applications. Each bundle also includes **FaceSpan**, to facilitate creating user interfaces for your scripts.

**Scripter** is a comprehensive authoring, debugging, and development tool, crafted to extend the power of **AppleScript**.

**Script Debugger** has powerful debugging and editing functions, and helps you understand the scripting interfaces of other applications.

**AppleScript, FaceSpan, and Scripter**

B2643Z/A **\$347.00**

**AppleScript, FaceSpan, and Script Debugger**

B2852LL/A **\$299.00**



You're up at 3 A.M.  
We're up at 3 A.M.

*(Might as well check out  
all our developer tools.)*

<http://www.devcatalog.apple.com>

Get the most up-to-date information and 24-hour ordering for everything in the *Apple Developer Catalog*, right from your Macintosh! Visit our Web site and place your order today!

## Missed WWDC?

Now you can order audio and video tapes of all the May 1996 WWDC seminars!

Tapes are available directly from GT Recording. Please see the insert between pages 48 and 49 for more details.

## Books and References

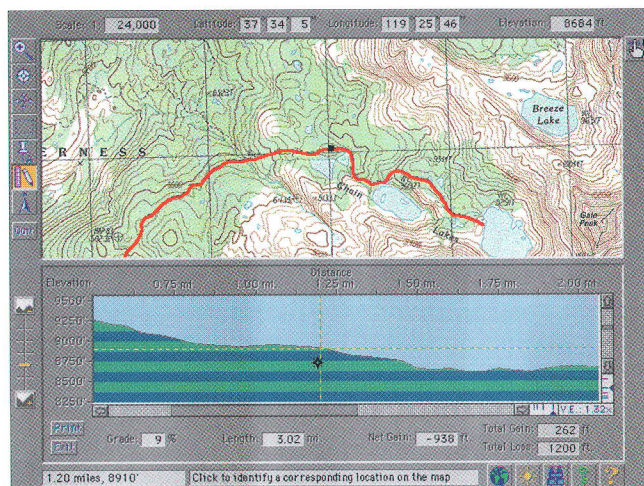
For books and references in the Solutions category, see page 53.

Allegiant Technologies, Inc.

## SuperCard 2.5

SuperCard 2.5 is the professional's choice for authoring and delivering interactive multimedia content and custom applications. It is ideal for creating computer-based training and education projects, authoring applications and CD-ROM titles, developing multimedia brochures, and more. SuperCard uses an easy-to-grasp scripting language that rewards your learning with the extraordinary power to create "double-clickable" stand-alone applications.

Features include 24-bit color, customizable transitions effects, QuickTime "Hot Spots" and VR sup-



*Interactive Applications—Design ground-breaking interfaces to multimedia content, as in the Topo! series of interactive recreational maps. Plus, create custom tools like the "elevation profile" that work with and display media any way you desire.*

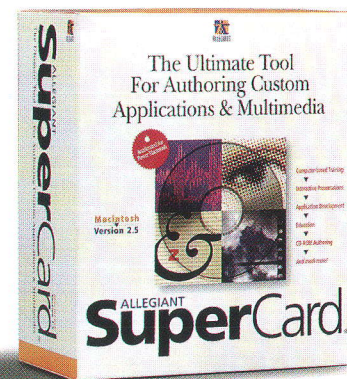
© 1995 Wildflower Productions, Inc.

port, backdrop windows, enhanced memory management, enhanced project security, more than 40 new scripting enhancements, and more.

SuperCard offers direct script control over all objects: paint and draw graphics, menus, windows, sounds, QuickTime movies, even Director animations. It automatically converts HyperCard stacks to SuperCard projects.

### Features

- 24-bit Color Support
- Enhanced QuickTime Capabilities
- Transition Effects
- Backdrop Window
- Sound Termination
- Script Insertion
- Object-based Memory Testing
- Environment Functions
- Expanded Menu Support
- New Runtime Editing Features

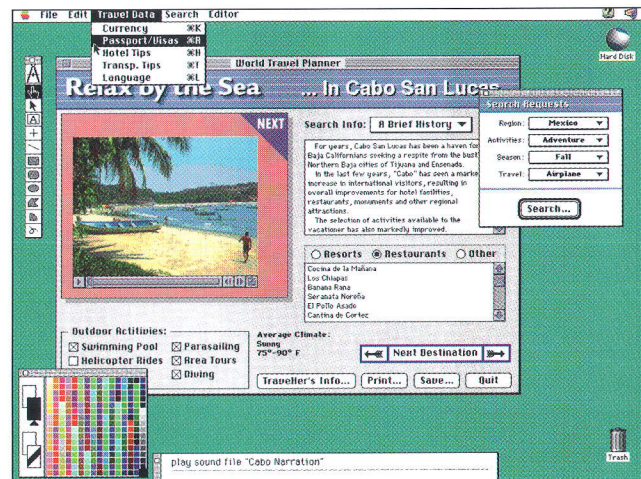


### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 2 MB RAM for black and white applications; 4 MB RAM for color applications; 10 MB hard disk space; System 7.0 or later (System 7.1 or later required for text-to-speech; QuickTime 2.0 or later required for playing movies).

### SuperCard 2.5

T1594LL/C **\$399.00**  
**REDUCED PRICE!** **\$299.00**



## Buy SuperCard 2.5 Now

and get everything you need for multimedia—free! VideoShop, LogoMotion, AudioShop, Morph, and TextureScape—a \$1000 value all on one CD-ROM, and at one special low price! See page 8 for ordering information.



Apple Computer, Inc.

**HyperCard 2.3**

HyperCard is an easy-to-use development tool for creating a wide range of custom software applications for the Macintosh. HyperCard organizes information into easy-to-use "stacks" of cards through which users can navigate and search for the information they need. Simply by clicking a button, you can view related text, see a graphic, hear a sound, or watch a QuickTime movie.

Used by commercial developers, consultants, in-house programmers and educators, HyperCard provides the flexibility to create all of the following applications: courseware, computer-based training simulations, database front ends, interactive multimedia presentations, information kiosks, and more.

HyperCard provides a robust prototyping and development environment for professional developers. It comes with powerful scripting tools (including AppleScript Runtime built-in), a modelless script editor, hypertext support, debugging tools, and other features to create powerful custom software. And, your HyperCard stacks can be saved as stand-alone, double-clickable applications that can be distributed without software royalty fees.

**Features**

- Accelerated for Power Macintosh
- New 24-bit color painting tools for creating your own color graphics

**INCLUDED WITH HYPERCARD 2.3****APPLESCRIPT RUNTIME**

*Lets you run scripts on your own system with the System Software extension, standard scripting additions, the script editor and scriptable test editor.*



- Automated Button Tasks that let you navigate between cards, add QuickTime movies, graphics, and sounds to your stacks. No scripting required.
- Read text out loud in various voices via PlainTalk
- Multimedia Utilities Bundle provides value-added tools for morphing, editing QuickTime movies, and more.

**Requirements**

- Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68000 or greater processor; QuickTime Tools require a 68020 or greater processor; Text-to-speech function requires a 68040 or greater processor.

**SAVE****WITH OUR HYPERCARD AND WINDOWSCRIPT BUNDLE.**

*Add the true look and feel of the Macintosh interface to your HyperCard stacks with WindowScript.*

**B2415LL/A**  
**\$189.00**

- At least 2 MB of RAM required for HyperCard 2.3; 4 MB of RAM required for System 7.0 or later, QuickTime Tools, and AppleScript; at least 5 MB of RAM is recommended when using Color Painting Tools.
- 12 MB hard disk space.
- System 6.0.5 or later; System 6.0.7 required for Color Tools; System 7.1 or later required for AppleScript, HyperCard Button Tasks, and the Standalone Application builder.
- QuickTime Tools requires the QuickTime system extension; Text to Speech function requires PlainTalk software (included).

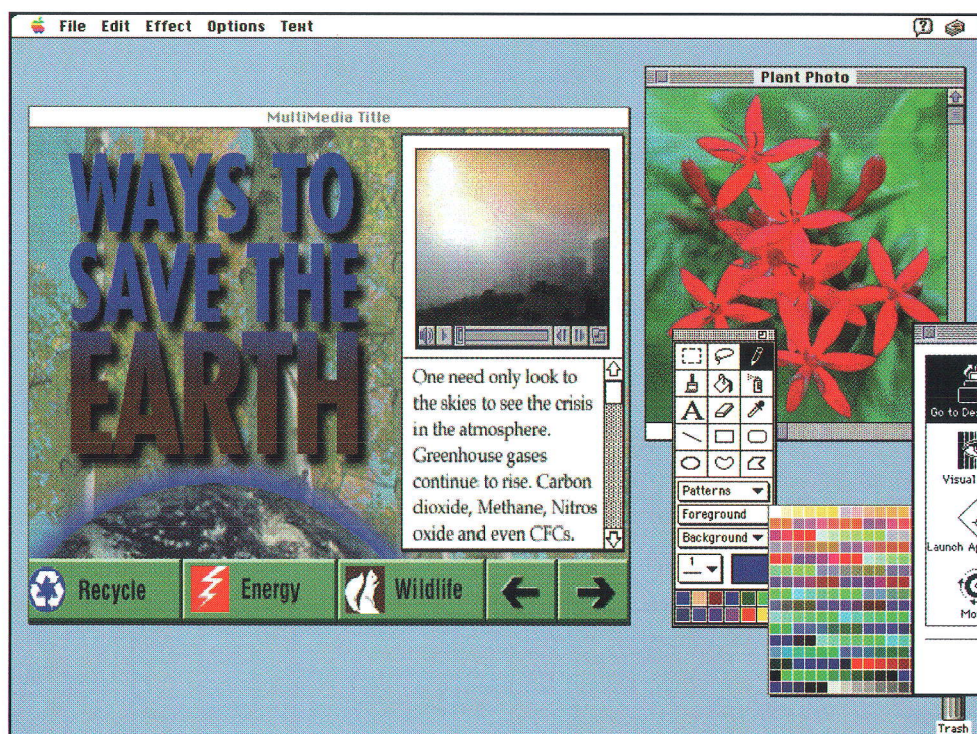
- Multilingual HyperCard applications may require WorldScript software and/or international versions of AppleScript software.

**HyperCard 2.3**

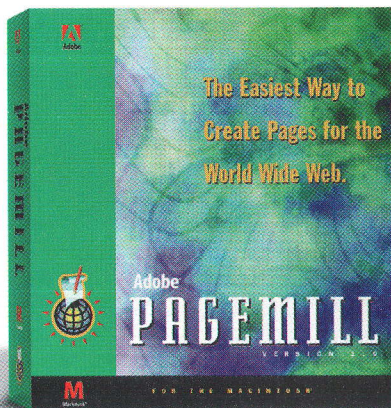
M2365Z/C **\$99.00**

**HyperCard 2.3 Upgrade (for 2.2 owners only)**

M3869Z/B **\$39.00**







With Adobe PageMill...

**creating Web pages is as easy as using your favorite word processor!**

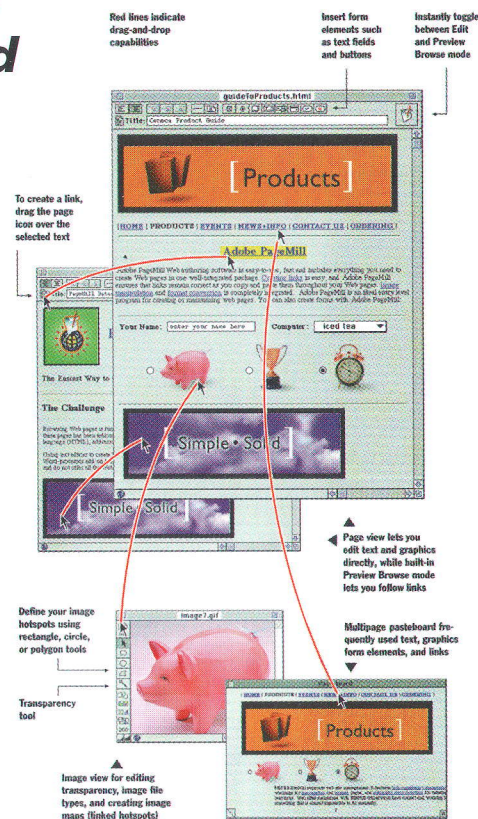
Now you can create full-featured Web pages without having to know a thing about HTML and URLs. That's because Adobe PageMill software makes integrating text and graphics on a Web page—even linking pages themselves—as easy as using your favorite word processor. You can apply styles, and place and resize images, which PageMill automatically converts into the appropriate format. Then, drag and drop parts of your documents into other locations. What you see is truly what you get!

Adobe PageMill produces output that works with any Web server and browser. And creating links is easy: simply drag a page icon from one document and drop it into another. The program ensures that the links remain correct as you copy and paste them throughout your Web pages. The built-in Preview Browse mode even lets you test your pages without leaving the program.

With all these features, Adobe PageMill is the easiest way to create pages for the World Wide Web!

See page 26 for ordering information.

**\$99<sup>00</sup>**



With Adobe SiteMill...

**you can manage your entire Web site with ease!**

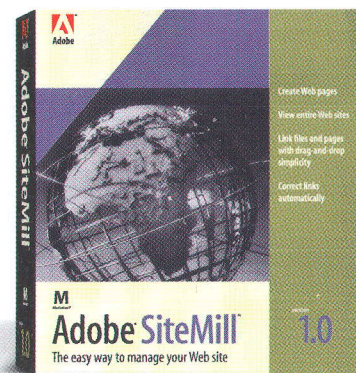
Now you can maintain correct links for your entire Web site. Always. And automatically. With Adobe SiteMill software, whenever you paste a link, rename a file, or move a file between folders, the program automatically repairs all links so that they point to the correct location. In addition, Adobe SiteMill reads existing Web sites and automatically finds any errors—and then lets you fix them with a simple one-step procedure.

**NOW ONLY \$199<sup>00</sup>**

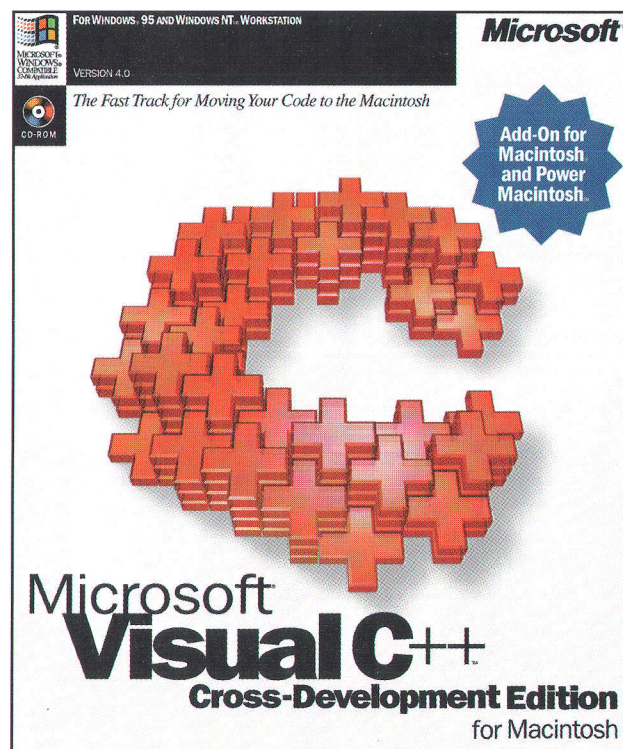
After that, your site remains error-free! You can create new links by opening a file or an image in the Page view. There, you get all the functionality of Adobe PageMill software, including true, WYSIWYG page editing and integrated image manipulation and image format conversion. That means you don't have to know anything about URL link addressing schemes or page pathname syntax. You don't even have to type any filenames because Adobe SiteMill automatically creates the correct links.

With all these features, Adobe SiteMill is the easy way to manage your Web site!

See page 26 for ordering information.







# Bring out the best in both worlds.

Using just one toolset to target multiple platforms, you can increase your user base and knock months off your development time. With Microsoft Visual C++ Cross-Development Edition for the Macintosh\*, you can reuse up to 90% of your code from your Windows-based applications to create the same applications for the Macintosh, with the familiar Macintosh interface.

## Features

- *Port Windows-based features* easily to the Macintosh, including multiple document interface, print preview, and floating toolbars. The Windows Portability Library does the work for you.
- *True native Macintosh programming*: Program directly to the System 7 API to take advantage of unique Macintosh features such as Publish and Subscribe.
- *Recompile for the Mac*: Target both the Windows and Macintosh operating systems using just one set of source code written to Microsoft Foundation Classes and the Microsoft Win32 API.

- *Power Macintosh support*: Including a fully optimizing compiler and integrated debugger that adapts to the PowerPC chip when displaying information in the register contents and disassembly windows.
- *Code Fragment support* for the Power Macintosh, which translates to better code sharing among applications and faster, trimmer applications with very little development overhead.
- *OLE support*: You can now easily port your Win32 and MFC OLE applications to the Macintosh using OLE for the Macintosh version 2.06.
- *ODBC support*: You can call ODBC directly or use it through the appropriate MFC classes.

For ordering and pricing information, see page 18.

**Microsoft®**

\*This add-on toolset requires Visual C++ for Intel platforms, available separately.

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Apple Computer, Inc.

## Oracle Power Objects 1.0

Oracle Power Objects software enables developers to deliver powerful client/server applications easier, faster, and with less coding than before, by combining the agility of visual programming environments with the robust data-handling capabilities of enterprise client/server tools. Applications are completely portable across Macintosh and Windows platforms so developers can deploy a single set of source code to an entire work group.

With Power Objects' Intelligent Data Management Architecture, you can create complex relational database functions visually, without coding. A "drag and drop" capability lets you move tables to a database server, propagate reusable components into multiple applications, copy databases from one server to another, and perform many other development functions with a click of the mouse. Power Objects provides the benefit of object-oriented programming—code reusability—in a way that non-programmers can master easily.

Versions of Power Objects are available for both individual and work group needs. Both the standalone and client/server packages include a compact SQL compliant local database.

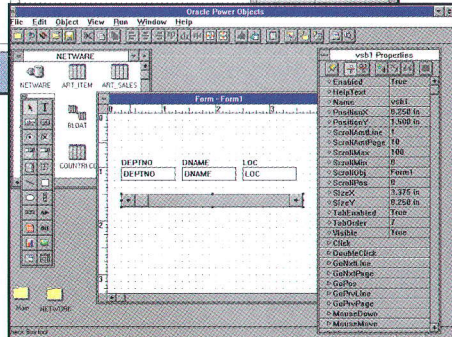
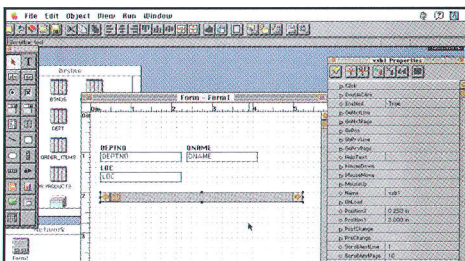
### Features

#### Visual application development

- Management of complex database functionality without coding
- Programming options selectable from sample property sheet

#### Ease of use

- Comprehensive drag and drop functionality
- Visual creation of reusable application components
- True multilevel inheritance



#### Cross-platform compatibility

- Support for Oracle and SQL Server databases (*Client/Server Edition only*)
- Macintosh and Windows deployment from same applications source code

#### Standards support

- BASIC language for scripting
- Drag-and-drop data migration from local SQL database
- Support for OLE, OCXs and DLLs

#### Database connectivity

- Native drivers for Oracle7 databases, Sybase SQL Server (version 4.2 or higher) databases, and Microsoft SQL Server (version 4.2 or higher) databases (*Client/Server edition only*)
- SQL compliant database

#### Integrated database session manager

- Create, modify, restructure, view and edit tables
- Create and modify table indexes and database views
- Create database sequence numbers
- Assign connection information

#### Integrated development environment

- Graphical application manager for displaying all application components
- Full support for OLE 2.0, OCXs and DLL calls under Windows 3
- Ability to create reusable application components directly in the product

#### Integrated graphical forms designer

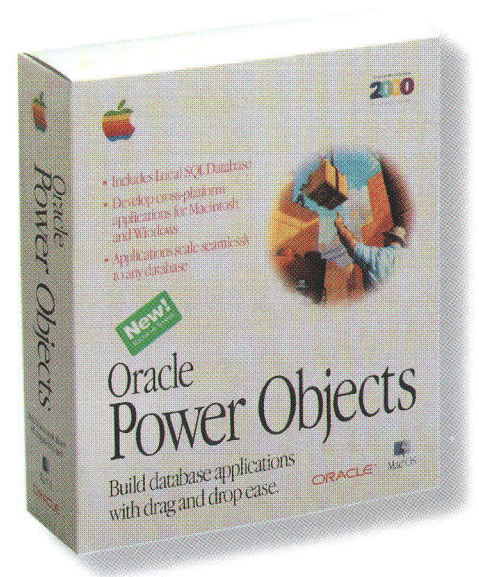
- Property sheet that allows customization for components without codes
- Built-in tools for alignment and tab order
- Standard components for buttons, checkboxes, radio buttons, list boxes, combo boxes, graphics text fields and more
- Data-aware objects for data fields, repeater controls, scroll bars and more
- Extensibility through standard OCX controls

#### Integrated banded report writer

- Adaptive load balancing for any data size
- Custom group specifications
- Multilevel sorting

#### Integrated BASIC editor, debugger, and compiler

- Full graphical debugging
- Graphical object hierarchy diagram
- Conditional breakpoints and watchpoints
- Step-through, step-in, and step-over code execution tracing
- Evaluation and modification of expressions and variables



#### Oracle BASIC scripting language

- Same syntax as Microsoft Visual Basic
- Structured, object-oriented language
- Full support for inheritance, polymorphism, and encapsulation

#### Local database

- SQL compliant
- Support for compiled fields
- Support for outer joins and join expressions
- Binary field support for multimedia applications

#### Requirements

One of the following computer systems:

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 12 MB RAM; 10 MB hard disk space; System 7.0 or later.

IBM PC or compatible computer with a 80386 or later processor (80486 recommended); 12 MB RAM; 10 MB disk space; Windows Version 3.1.

For connection with remote databases:

SQL\*Net (any version 1, 1.8x through 2.0x)

For connection to SQL Server databases:

On a Macintosh system, Sybase OpenClient/Server Release 10.02 for Macintosh.

On a Windows System, Microsoft SQL Server 4.21 Client for Windows 8.1 or Sybase OpenClient/C for PC/MS Windows v.10.01.

#### Oracle Power Objects for Macintosh (special price good through 10/96)

M4417Z/A **\$99.00**

#### Oracle Power Objects Client/Server Edition for Macintosh

M4419Z/A **\$1,499.00**

#### Oracle Power Objects for Windows

M4418Z/A **\$99.00**

#### Oracle Power Objects Client/Server Edition for Windows

M4421Z/A **\$1,499.00**



## INTERSOLV

**INTERSOLV DataDirect Developer's Toolkit**

INTERSOLV DataDirect Developer's Toolkit is a complete high-level API that provides DBMS-independent access, query, and data handling functions to rapidly build ODBC-compliant SQL applications. It includes ODBC-compliant drivers, is compatible with all development environments, and is available for Macintosh, Windows, OS/2, Windows NT, and Solaris.

**Features**

- Supports multiple platforms
- Available for Macintosh, Windows 3.1+, OS/2, Windows NT, and UNIX
- Code written for DBMS access portable to other platforms without alterations
- Works with all major development environments
- Callable from any source that can call a DLL or shared library: any development tool and any macro, programming or scripting language
- Creates a powerful and complete DBMS-independent client/server development environment by integrating with a preferred development tool

**Requirements**

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 4 MB RAM; 6 MB hard disk space; System 7 or later.

T1762Z/A **\$699.00**

## Brossco Systems, Inc.

**Voyant 3.0 Designer**

Voyant is a powerful client data access tool that provides easy access to information in an SQL database, without SQL programming.

Voyant's advantages over other data access tools is the presentation of data in the form of powerful graphics, providing a comprehensive data overview. With Voyant, complex data is grouped into dimensions and presented as easy-to-use pop-up menus. By presenting large amounts of data via menus and by swapping dimensions, hundreds to thousands of dynamic views of your information are possible within a single graphic. Voyant is easy to implement and administer; a productive data access system can be created in a few hours.

Voyant has database administration tools for creating tables, views, and viewing data in the database. Voyant can also input and output data between text files and a database. Includes five run-time versions.

**Requirements**

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68020 or greater processor; 5 MB RAM; 3 MB hard disk space; System 7.0.1 or later; Oracle v. 5, 6, 7, or any DAL DBMS.

**Note**

Product available through catalog to U.S. customers only. Customers located outside the U.S. should contact the manufacturer for resellers in their area.

T1769LL/B (U.S. only) **\$1,295.00**

## INTERSOLV

**INTERSOLV DataDirect ODBC Pack**

INTERSOLV DataDirect ODBC Pack, an integral part of INTERSOLV's Virtual Data Warehousing solution, is a comprehensive suite of ODBC drivers that connect ODBC-compliant applications across multiple platforms to all major databases and gateways. These drivers allow you to seamlessly access important corporate data from the familiar desktop applications you use everyday.

INTERSOLV DataDirect ODBC Drivers are now available across eight operating systems including Macintosh, Windows 3.1, Windows NT, OS/2, Sun Solaris, HP-UX, AIX, and Windows 95. ODBC drivers are the critical link between an ODBC-enabled application and an individual database.

INTERSOLV DataDirect ODBC Drivers are the industry standard and are embedded in more than 60 independent software vendor products.

A key component of the INTERSOLV Development Suite, the award-winning DataDirect ODBC Drivers offer robust support for the widest base of operating systems and databases available in the industry.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 4 MB RAM; 6 MB hard disk space; System 7 or later.

T1761Z/A **\$499.00**

## Visigenic Software Inc.

**Visigenic ODBC Drivers**

The Visigenic ODBC Drivers provide high performance data access to multiple SQL databases without the complexity of native database APIs. The products support the most comprehensive set of client/server platforms—including Macintosh and Power Macintosh, Windows, Windows NT, Windows 95, IBM AIX, HP-UX, SCO, Solaris, Sun OS, and OS/2—making them the only cross-platform ODBC solution. The Visigenic ODBC Drivers include Informix, Microsoft SQL Server, and Oracle on the Macintosh platforms, as well as CA-Ingres, Sybase, and IBM DB2 on other platforms.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 10 MB RAM; 2 MB hard disk space; System 7.5 or later.

**Note**

Price is per driver and per user, with a minimum of five.

**Visigenic ODBC Oracle Driver**  
T1990Z/A **\$95.00**

**Visigenic ODBC SQL Server Driver**  
T1991Z/A **\$95.00**

**Visigenic ODBC Informix Driver**  
T1992Z/A **\$95.00**

## dtF Americas, Inc.

**dtF/Mac 1.6 for C/C++**

dtF is the high-performance SQL database system for Apple Macintosh. dtF/Mac for C/C++ features SQL, full transaction control, integrated error recovery, client/server architecture, a compact and easy-to-use API, MacApp, TCL, and PowerPlant sample source code. Separate A4-relative and FAR CODE/DATA libraries are available. dtF is the premier choice for developers who want to create high-powered database-centered applications with no performance trade-offs. Applications created with dtF are compact, requiring minimal hard disk space and run-time memory. With dtF's unique direct integration technology, the dtF database system is contained in your executable enabling you to create double-clickable applications without additional drivers, extensions, or INITs. The API for dtF stand-alone and client/server versions is identical, allowing a smooth upgrade from stand-alone to client/server database applications.

**Requirements**

Server: Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 2 MB RAM; 110 KB hard disk space; System 7 or later; AppleTalk.

Stand-alone: Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 512 KB RAM; 350 KB hard disk space.

**Stand-alone**  
T1768Z/B **\$695.00**

**Client/Server**  
T1767Z/B **\$1,595.00**

## dtF Americas, Inc.

**dtF/Mac 1.6 for HyperCard**

dtF is the high-performance SQL database system for Macintosh. dtF/Mac for HyperCard features SQL, full transaction control, integrated error recovery, client/server architecture, an editable SQL tutorial stack, table formatting/utility XCMDs, and high-performance API additions for result table manipulation (complete result table/column). Applications created with dtF are compact, requiring minimal hard disk space and run-time memory. With dtF's unique direct integration technology, the dtF database system is fully contained in your HyperCard stack enabling you to create double-clickable applications without additional drivers, extensions, or INITs. The API for dtF stand-alone and client/server versions is identical, allowing a smooth upgrade from stand-alone to client/server database applications. A separate ODBC driver is available from the manufacturer.

**Requirements**

Server: Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 2 MB RAM; 110 KB hard disk space; System 7 or later; AppleTalk. Stand-alone: Macintosh with a 68000 or greater processor; 512 KB RAM; 350 KB hard disk space.

**Stand-alone**  
T1819Z/B **\$695.00**

**Client/Server**  
T1820Z/B **\$1,595.00**



ACI US, Inc.

**4D SDK 3.5**

4th Dimension Software Development Kit (4D SDK) is a comprehensive development environment for building, compiling, and distributing 4th Dimension applications. 4D SDK combines the leading ACI application development and deployment products, 4th Dimension, 4D Compiler Pro, and 4D Insider, along with free, unlimited runtime distribution.

4D SDK provides a fast, quality development package for developers who create off-the-shelf 4th Dimension applications, or for large corporate customers who deploy 4D databases among many users in their organizations.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 6 MB RAM; 18 MB hard drive space; System 6.0.7 or later.

**Note**

Product available through catalog to U.S. customers only. Customers located outside the U.S. should contact the manufacturer for resellers in their area.

T1773LL/B (U.S. only) **\$2,295.00**



Claris Corporation

**FileMaker Pro 3.0**

FileMaker Pro software is the only relational database application designed to help you easily manage and share information in the real world. Starting with raw data, it's fast and easy to create working databases—or use one of the more than 40 fully designed templates for instant business, education and home solutions.

In addition to simply powerful software, the Claris Solutions Alliance (CSA) offers a wide variety of services ranging from quick, practical training to customized and ready-made solutions. For information on CSA, call 1-800-3CLARIS.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM (8 MB recommended for 680x0 computers and required for Power Macintosh computers); System 7.0 or later; CD-ROM drive.

**Note**

Product available through catalog to U.S. customers only. Customers located outside the U.S. should contact the manufacturer for resellers in their area.

T1717LL/B (U.S. only) **\$199.00**



POET Software

**POET 3.0**

POET is an object-oriented database that understands your C++ declarations so you never have to translate your classes into tables. In addition to traditional database features like queries, device-independent storage formats, nested transactions, and locking, POET offers features that let you install functions to monitor the progress of long queries, install call-back functions, and much more.

POET supports Macintosh, Power Macintosh, Windows 3.1, Windows NT, Windows 95, Novell, OS/2, UNIX (AIX, Sun OS, Solaris, HP-UX, SGI Irix, SCO) as single-user or client/server system.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 4 MB RAM to run database, 8 MB RAM for development; 7 MB hard disk space; System 7.5 or later.

**POET Personal Edition for Macintosh**

T1539LL/B **\$249.00**

**POET Personal Edition for Power Macintosh**

T1540LL/A **\$249.00**

**General Knowledge****DataScript 3.0**

DataScript is probably the quickest, easiest, and most cost-effective way to make your integrated AppleScript solutions database aware. You can make new or existing scripted solutions database aware in a flash. It takes just six lines of AppleScript to fetch data from an industry-standard database management system.

DataScript's scripting vocabulary or terminology is easy to learn, easy to use, and easy to remember. If you've done any scripting before, you'll be up and running with DataScript in no time and be productive very, very quickly. Once you're ready to ship your finished database-aware solution, you'll find our licensing schemes very attractive.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; 750 KB hard disk space; System 7 or later; AppleScript 1.1.

**DataScript for the Data Access Manager**

T1085LL/A **\$249.00**

**DataScript for Oracle**

T1086LL/A **\$249.00**

**DataScript for SequelLink**

T1088LL/A **\$249.00**

**DataScript for Sybase**

T1087LL/B **\$249.00**

Claris Corporation

**FileMaker Pro 3.0 Server**

FileMaker Pro Server is a powerful relational network server which delivers dramatically faster multiuser performance and new centralized network management tools across AppleTalk, IPX/SPX and TCP/IP networks. With optimized indexing and record locking, workgroup users can realize significant performance gains.

In addition to simply powerful software, the Claris Solutions Alliance (CSA) offers a wide variety of services ranging from quick, practical training to customized and ready-made solutions. For information on CSA, call 1-800-3CLARIS.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 8 MB RAM; System 7.1 or later; Thread Manager (included with application); multiuser file sharing support (AppleTalk, IPX/SPX, or TCP/IP); TCP/IP networking requires Open Transport 1.0.8 or later.

**Note**

Product available through catalog to U.S. customers only. Customers located outside the U.S. should contact the manufacturer for resellers in their area.

T1780LL/B (U.S. only) **\$999.00**



Pictorius, Inc.

**Entrada! Developer and Corporate**

**COMING  
SOON**

Entrada! is a powerful rapid application development client/server environment for creating databases and complex compiled applications for the Internet, intranets, and LANs. A year of free support, and updates. Compilers are included for 68K and Power Macintosh computers.

**Features**

- Visual and object-oriented down to the Mac Toolbox
- Framework of dialogs, menus, and editors to streamline development
- Automatic input and output window generation and SQL code generation
- True client/server architecture
- Full source code included
- Butler and dtF database connectivity with Developer version—ODBC compatible
- Additional Oracle and Sybase connectivity in Corporate version

**Requirements**

Macintosh or Mac OS-compatible computer with a 68040 or greater processor; 20 MB RAM; 50 MB hard disk space for Entrada! Developer; 60 MB hard disk space for Entrada! Corporate; System 7.0 or later.

**Entrada! Developer**

T1900Z/B **\$1,495.00**

**Entrada! Corporate**

T1901Z/B **\$2,495.00**



Brio Technology, Inc.

## BrioQuery Enterprise 4.0



BrioQuery Enterprise is the original Desktop OLAP Query tool and has the distinction of being the first desktop application to combine professional query, reporting, and interactive analysis functions into one complete and easy-to-use product.

BrioQuery Enterprise offers elegant and powerful analysis capabilities. For IS professionals who must establish and manage end-user query systems, no other product does as much with so little effort.

### Features

- BrioQuery Enterprise is the original Desktop OLAP tool
- The optimized, compact desktop database cache enables users to work effectively off-line
- BrioQuery Enterprise is the only complete solution with a consistent user interface that provides open-ended flexibility and control
- BrioQuery Enterprise allows users to leverage the business metadata that exists in most data warehouses
- Brio provides concurrent cross-platform releases on Macintosh, Windows, and UNIX platforms

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 4 MB RAM; 2.5 MB hard disk space; System 7 or later.

T1771Z/B **\$795.00**

MultiQuest Corporation

## S-CASE 2.0

S-CASE is an object-oriented analysis and design tool that uses the Booch notation to graphically illustrate and model software systems.

High quality C++ code can be generated directly from the models. S-CASE allows iteration through the design, code, and test cycle while keeping the models and code in sync. This iterative approach allows developers to enhance their design through successive refinement without worrying about outdated their models.

### Requirements

Macintosh or Mac OS-compatible computer with a 68040 or greater processor; 4 MB RAM; 3 MB hard disk space; System 7 or later.

T1871Z/A **\$495.00**

Brio Technology, Inc.

## DataEdit 2.2

DataEdit is a graphical desktop development system that enables extremely rapid construction of forms-based client/server applications for SQL databases. DataEdit includes a data entry forms-building program with a built-in SQL generator and a centralized data model. It provides multi-user access to relational databases, and requires no user knowledge of SQL. DataEdit allows users to update and query relational databases quickly and easily from within a forms environment. DataEdit provides built-in, automatic version control and a centralized data dictionary. DataEdit supports a variety of database connection software, including Data Access Language (Apple), Data Access Manager, SQL\*Net (Oracle), OpenClient (Sybase), ODBC, and connects to the following relational databases: Butler, Informix, Ingres, NetWareSQL, ORACLE, Sybase, Rdb, Non-stop SQL, and Red Brick Warehouse.

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 4 MB RAM; 1.5 MB hard disk space; System 7 or later.

T1770Z/B **\$499.00**

ICONIX Software Engineering, Inc.

## A Unified Object Modeling Approach

This is the first interactive multimedia product that provides detailed Object-Oriented methodology training on CD-ROM.

Anticipating the trend that has brought Booch, Rumbaugh, and Jacobson together in an effort to unify their methods, "A Unified Object Modeling Approach" offers extensive tutorials on the strengths of each method: Jacobson for user-driven requirements and traceability across the lifecycle, Rumbaugh for domain analysis and reuse across multiple projects, and Booch for detailed C++ design. In addition, Prototyping is stressed as a requirements definition technique, with extensive explanations on how to derive Use Case and Domain Object Models from prototypes.

Focal points include tutorial examples relevant to state-of-the-art systems being implemented today, such as: a Video on Demand System, a Hospital Information System, a Financial Portfolio Management System, and an Automobile Navigation System.

### Requirements

Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 5 MB RAM; 4 MB hard disk space; System 6.0.7 or later; 13" color monitor; CD-ROM drive.

T1905Z/A **\$995.00**

EveryWare Development Corp.

## Butler SQL 2.0



Butler SQL is the premier client-server relational database system for the Macintosh and Power Macintosh. With Butler SQL you'll discover for yourself the superior performance and flexibility of the only SQL client-server database for the Macintosh platform.

Butler SQL is bundled with CLEAR:Access, a visual query and reporting tool from Sterling Software Inc.

### Features

- Open Database Connectivity (ODBC) support
- ODBC drivers for Macintosh and all flavors of Windows (3.1, 95, and NT)
- Support for TCP/IP connections
- Support for Macintosh and Windows clients

### Requirements

Power Macintosh, Macintosh, or Mac OS-compatible computer with a 68020 or greater processor; 4 MB RAM; 4 MB hard disk space; System 7.5 or later.

### Butler SQL-5 user

T1970Z/A **\$695.00**

### Butler SQL unlimited users

T1971Z/A **\$1,995.00**

ICONIX Software Engineering, Inc.

## O-O Starter Kit

The ICONIX O-O Starter Kit provides developers with a low-cost, low risk way of getting their "feet wet" in the world of Objects. The kit provides everything developers need to get started in Object-Oriented software engineering, providing exposure to multiple methodologies so developers can pick the ones that are right for them.

It includes: ICONIX's state-of-the-art training tool, a CD-ROM entitled "An Object Methodology Overview," the industrial-strength Object-Oriented Analysis and Design capabilities of ObjectModeler and FastTask, and one year maintenance from the manufacturer.

### Requirements

Macintosh or Mac OS-compatible computer with a 68020 or greater processor; 5 MB RAM; 4 MB hard disk space; System 6.0.7 or later; CD-ROM drive.

T1904Z/A **\$3,495.00**



## Excel Software

**MacAnalyst 5.0**

MacAnalyst supports software engineering methods including structured analysis, data and screen modeling, object-oriented analysis, and data dictionary. Object-oriented class diagrams and state modeling methods include Booch, OMT, Shlaer/Mellor, Jacobson, Fusion, and Coad/Yourdon.

The integrated requirements window provides traceability from requirement statements to analysis or design diagrams. This tool is used by system analysts, database designers, and software developers to reduce development cost and improve quality by automating the analysis and top level design process.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM; 15 MB hard disk space; System 7 or later.

**MacAnalyst 5.0**

T1666LL/B **\$995.00**

**MacAnalyst 5.0/Expert**

T1765Z/A **\$1,595.00**

**MacAnalyst 5.0 Demo & Manuals**

T1706LL/B **\$79.00**

## StructSoft, Inc.

**TurboCASE 4.25**

TurboCASE is an award-winning CASE tool that supports multiple methodologies for both analysis and design. It supports the structured methodologies with three real-time extensions. It also supports the data modeling for database design and newer object-oriented analysis and design.

In the object-oriented supports, it provides editors for class hierarchy, class definition, class collaboration, and class design.

**TurboCASE/Sys 2.05**

TurboCASE/Sys is the only comprehensive system engineering CASE tool that supports the complete Hatley/Pirbhai methodology. It not only supports the real-time requirements analysis, but also goes all the way to support the architecture modeling which is so essential for large system development involving many layers of hardware and software components.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM; 2 MB hard disk space; System 6.5 or later.

**TurboCASE 4.2.5**

T1756Z/A **\$495.00**

**TurboCASE/Sys 2.05**

T1757Z/A **\$2,495.00**

## Excel Software

**MacDesigner 5.0**

MacDesigner supports software engineering methods including structured, object-oriented, and multi-task design. Structure charts show module organization in procedural programs, while object diagrams show the design mechanism in an object-oriented design. It includes code editing and browsing using the built-in Browse window and a data dictionary for defining design details.

The integrated requirements window provides traceability from requirement statements to design diagrams, code, or test procedures. Real-time, multi-tasking systems can be designed showing threads of execution, interrupt service routines, and operating system services like queues, mailboxes, and semaphores. This tool is used for detailed design and maintenance of software development projects.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM; 15 MB hard disk space; System 7 or later.

**MacDesigner 5.0**

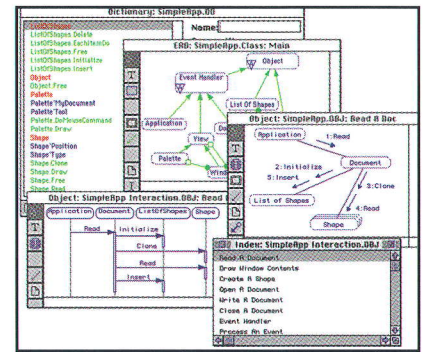
T1764Z/A **\$995.00**

**MacDesigner 5.0/Expert**

T1763Z/A **\$1,595.00**

**MacDesigner 5.0 Demo & Manuals**

T1832Z/A **\$79.00**



## Excel Software

**MacA&D 5.0**

MacA&D, winner of the CIO Magazine Readers' Choice Award in the category of Macintosh CASE tools, provides an integrated solution for object-oriented analysis and design. Methods include Booch 94, OMT, Shlaer/Mellor, Jacobson, Fusion, and Coad/Yourdon. Structured analysis and design methods include Yourdon/DeMarco, Gane and Sarson, and Hatley/Pirbhai.

Create data models using Information Engineering, Chen, or Shlaer/Mellor notations; then generate foreign keys and SQL code automatically. Track requirement statements to diagrams, or test procedures by double-clicking. Share information across a network using the multi-user, team dictionary and requirement documents.

Generate structure charts from existing C, Pascal, Basic, or Fortran code, or class diagrams from C++ or Object Pascal using the companion Translator utility.

Features include cut, copy, paste, publish, subscribe, text import/export of diagrams, dictionary, Balloon Help, and scalable, multi-page, multi-level diagrams with index window for easy navigation.

**Features**

- Structured analysis and design
- Object-oriented analysis and design
- Real-time and multi-task design
- Data and screen modeling
- Integrated code editing and browsing
- Multi-user dictionary and requirements
- Code to design diagrams for C, C++, etc.
- Design diagrams to code for C, C++, etc.
- State modeling diagrams and tables
- Use cases with traceability

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM; 15 MB hard disk space; System 7 or later.

**Special User Notes**

Call 1-515-752-5359 for educational, site licensing, update service and on-site training prices. Ask for your free technical brochure.

**MacA&D 5.0**

T1766Z/A **\$2,995.00**

**MacA&D 5.0 Demo & Manuals**

T1833Z/A **\$149.00**

## Excel Software

**Translator 1.0**

Generate multi-level structure charts automatically from existing C, Pascal, BASIC, or FORTRAN code using the Translator with MacDesigner. Use Translator and MacAnalyst to generate class diagrams from C++ or MPW Object Pascal showing inheritance structure with Booch, OMT, Shlaer/Mellor, and Coad/Yourdon notations. Double-clicking diagram objects reveals source code using the integrated code browser.

**Requirements**

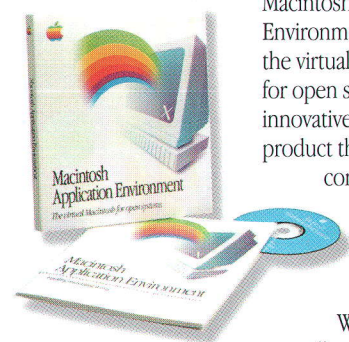
Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 6 MB RAM; 10 MB hard disk space; System 7.0 or later.

T1834Z/A

**\$495.00**



Apple Computer, Inc.

**Macintosh Application Environment (MAE) 2.0**

Macintosh Application Environment (MAE)—the virtual Macintosh for open systems—is an innovative software product that provides a complete

Macintosh environment in an X Window,

allowing you to run applications for Mac OS right on your workstation.

MAE brings the functionality and ease-of-use of the Macintosh computer to Sun Microsystems SPARCstations running the SunSoft Solaris operating system, as well as to Hewlett-Packard Series 700 workstations running HP-UX.

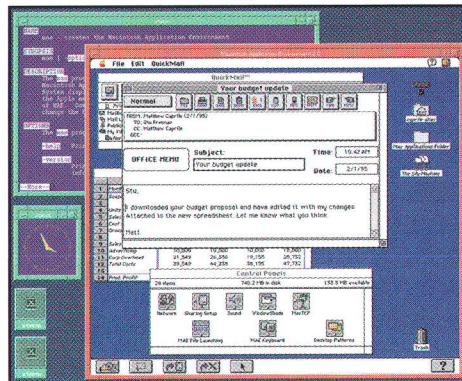
Version 2.0 extends the power of MAE with the inclusion of AppleTalk networking—making it easy to share printers, files, and e-mail with other Macintosh and MAE users on a network. Other new features include MacTCP, dramatic performance gains, support for Macintosh and sound-based applications.

**Features**

- **It's a virtual Macintosh** MAE provides the familiar Macintosh graphical user interface and desktop in an X Window. Based on Macintosh

System 7.1 (and incorporating several handy features of System 7.5), MAE lets you open UNIX files (including NFS-mounted volumes), access UNIX applications through the Macintosh interface, and use systems services (such as PostScript printers on a UNIX network).

- **It runs Macintosh applications** MAE lets you use the most popular off-the-shelf Macintosh software on your UNIX workstation. It provides one consistent interface for all Macintosh applications, complete with icons, menus, windows, and outline fonts.
- **It integrates smoothly with UNIX** MAE is fully integrated with the standard UNIX file system and allows you to copy and paste text and graphics between the UNIX and Macintosh environments. MAE organizes UNIX files and applications, and allows use of the control panels from the Macintosh desktop to configure your keyboard, mouse, and monitor settings.
- **It makes networking easy** Through built-in support for AppleTalk, you can easily share documents, electronic mail, and printers with other MAE and Macintosh users, allowing for tighter integration between UNIX workstations and Macintosh-based administrative systems. And, support for MacTCP enables you to access the Internet and TCP/IP-based applications.

**Note**

Try MAE 2.0 for FREE! A fully-functional demo, valid for 30 days, can now be downloaded from the MAE web site at <http://www.mae.apple.com>.

**Requirements**

HP Series 700 workstations run in HP-UX 9.0.x or 10.01, or Sun SPARCstation running Solaris 2.3 or later; X Window System version 11, release 4 or 5; 16 MB RAM (32 MB recommended); 16 MB hard disk space (22 MB recommended); Window manager such as Motif, HP VUE, or OPEN LOOK (includes STREAMS/UX in HP-UX version); CD-ROM drive.

**MAE 2.0 for Solaris (1 user)**

M2191Z/B **\$459.00**

**MAE 2.0 for Solaris (20 user)**

M3162LL/B **\$7,499.00**

**MAE 2.0 for HP-UX (1 user)**

M3128Z/B **\$459.00**

**MAE 2.0 for HP-UX (20 user)**

M3352LL/B **\$7,499.00**

Apple Computer, Inc.

**Apple Remote Access Modem Toolkit 2.0**

This product provides the tools and documentation you need to create modem connection scripts for the Apple Remote Access Client for Macintosh, Apple Remote Access Personal Server, or Apple Remote Access MultiPort Server. These scripts are necessary for establishing and terminating connections.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM; 200 KB hard disk space; System 7 or later; an Apple modem or Hayes-compatible modem (2400 baud minimum) and appropriate cable; HyperCard 2.0 or later; Apple Remote Access Client for Macintosh or Apple Remote Access Personal Server for Macintosh.

R0129LL/C **\$50.00**

Apple Computer, Inc.

**MacX 1.5**

MacX 1.5, Apple's high-performance X Window System solution for the Mac OS, now delivers PowerPC-native performance and X11R5 standards compliance to users. MacX combines complete X Window System functionality with Macintosh ease of use for both new and experienced X Window System users. Not only can you display network-based X client applications on your Macintosh desktop—you can cut and paste text and color graphics between Macintosh applications and X clients.

With MacX, you can access X clients from a pull-down menu, and display X clients in familiar Macintosh windows for easy moving and resizing.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 5 MB RAM (8 MB recommended) for 68K-based computers; 8 MB (16 MB recommended) for PowerPC processor-based computers; 8 MB hard disk space; System 7.1 or later; access to a UNIX or VMS host via an Ethernet or Token Ring connection, or via LocalTalk with a DDP/IP gateway; CD-ROM drive.

M0108Z/E **\$149.00**

**Special Offers**

Save \$70 if you already own a previous version of MacX.

R0688Z/A **\$79.00**

Owners of an eligible competitor's product can save \$50.

R0687Z/A **\$99.00**



Apple Computer, Inc.

**Apple Internet Router Administrator's Toolkit 3.0**

Designed to give network administrators greater flexibility in configuring the Apple Internet Router, this kit allows for easy sharing of host lists for users of the AppleTalk/IP Wide Area Extension.

**Requirements**

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 4 MB RAM; 300 KB hard disk space; System 7 or later.

R0490LL/A **\$199.00**



Apple Computer, Inc.

## Newton Toolkit 1.6

With Newton Toolkit, you can easily create software that runs on any Newton PDA, including Apple's MessagePad and Motorola's Marco. The Newton Toolkit is a development environment that reduces the complexity and time involved in creating great software products.

**See Results in Seconds** The Newton Toolkit provides all the tools you need to create applications and content for Newton PDAs. Its rapid prototyping features, library of extensible components, and interactive development cycle let you see results in seconds. This capability helps you bring products to market faster.

**Now Supports Newton 2.0** The latest version of Newton Toolkit now includes support for Newton 2.0, the latest version of the Newton operating system. Newton Toolkit 1.6 also has been accelerated for Power Macintosh and includes some new debugging and diagnostic tools that run on your Newton PDA.

**Dynamic Language Eases Development** The language at the core of the Newton Toolkit is called NewtonScript. This object-oriented, dynamic language provides everything from automatic memory management and event handling to built-in user interface, data storage, and communications objects.

NewtonScript is tightly integrated with the Newton architecture and includes features that let you develop applications interactively, without



going through the traditional edit, compile, and link cycles. You can make changes to your code and see the results right away.

### New Compiler Enables Faster Applications

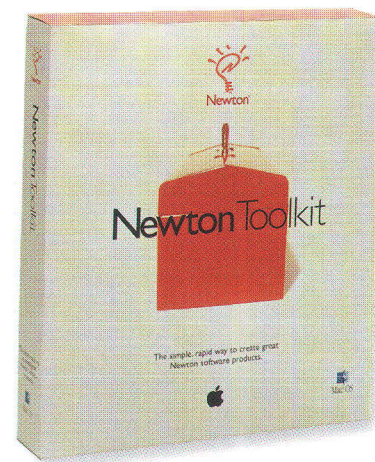
Newton Toolkit features a NewtonScript compiler and profiler that enable you to create much faster Newton applications. Using these tools, you can choose particular routines in your application to compile down to native ARM machine language. This gives you the control you need to achieve the highest possible performance for your application.

### Publish Electronic Books with Book Maker

Newton Book Maker, included with Newton Toolkit, is a tool for publishers that facilitates the creation of electronic books, travel guides, reference materials, and corporate documentation for Newton PDAs. It automatically creates sophisticated, customizable, and easy-to-navigate applications from electronic documents (such as word processing documents) containing both graphics and text. Newton programmers can use Newton Toolkit objects and the NewtonScript language to fully extend and customize Book Maker applications.

## New in Newton Toolkit 1.6

- Accelerated for Power Macintosh
- Support for Newton 2.0
- Improved Debugging Tools



### Licensing Note

Call Apple Software Licensing at 1-512-919-2645 for licensing details.

### Requirements

Macintosh or Mac OS-compatible computer with a 68030 or greater processor (a Power Macintosh is highly recommended); 8 MB RAM (16 MB recommended for Power Macintosh); 10 MB hard disk space; System 7.0 or later; CD-ROM drive.

### Newton Toolkit 1.6

H0107Z/D **\$299.00**

### Newton Toolkit Update 1.6

H0167Z/C **\$49.00**

(Includes updates to both Newton Toolkit 1.6 and Newton Book Maker 1.1; only available to owners of earlier versions of Newton Toolkit)

## Newton Programmer's Guide for Newton 2.0

The Newton Programmer's Guide consists of three volumes. Two volumes covering the Newton System Software, and one volume covering Newton Communications.

The two-volume set, *Newton Programmer's Guide: System Software*, is the definitive guide and reference for Newton programming. This set of volumes explains how to write Newton programs and describes the system software routines that you can use to do so. This guide is for anyone who wants to write NewtonScript programs for the Newton family of products.

The *Newton Programmer's Guide: Communications*, describes the Newton communications system software for version 2.0. This guide is for anyone who wants to write NewtonScript programs for the Newton family of products, and specifically covers the communication interfaces in Newton system software.

An electronic version of this guide is included in Newton Toolkit.

H0194Z/A **\$149.00**

## Newton 2.0 User Interface Guidelines

Addison-Wesley Publishing Company, Inc.  
Apple Computer, Inc. 1996

*Newton User Interface Guidelines* is an essential book for anyone developing products for Newton devices. It provides authoritative information that designers, engineers, and human interface professionals need to design and create software that fits

the Newton model. The book illustrates many examples of good and bad design, and explains why one is better than another.

T1986Z/A **\$24.75**

## SAVE COMPLETE NEWTON PROGRAMMING BUNDLE

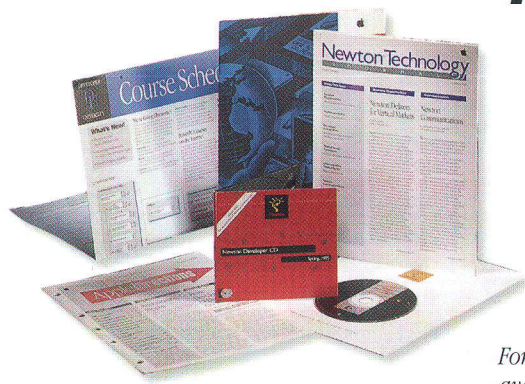
Now, get the tools  
AND the printed  
documentation!

- Newton Toolkit 1.6
- Newton Programmer's Guide for Newton 2.0
- Newton 2.0 User Interface Guidelines

**B2746Z/A**  
only **\$349.00**



## Newton Developer Program and Developer Mailing



Apple has created several resources to meet the varying needs of Newton developers. For those who want access to basic technical development resources, our World Wide Web site at <http://dev.info.apple.com/newton> provides documentation, sample code, and Q&As for downloading. For those developers who want to be in the know but who do not require technical support, the Newton Developer Mailing provides the latest technical and business information from Apple each month. Our Newton Developer Program combines the Developer Mailing with training discounts, hardware purchase discounts (in selected countries), access to private online resources on the Internet, and one-to-one technical support.

### Newton Developer Program

#### Features

- **Newton Developer Mailing** (see next column for description)
- **Development Hardware Purchasing Privileges** Newton Developer Program members in certain countries have the option to buy a designated number of Apple products at a discount to facilitate initial development.
- **Seeding Opportunities** All Newton program members are eligible for consideration to receive pre-release hardware units and software releases. (Apple will distribute such pre-release products based on Apple's testing objectives and available quantities.)
- **Newton Development Class Discounts** You'll receive two coupons, each redeemable for \$100 off any Newton development class at Developer University.
- **Online Resources** As a Newton program member, you will have access to several member-only resources on the Internet.
- **Third-Party Compatibility Lab** Located in Cupertino, California, this by-appointment lab provides access to a range of Apple equipment for compatibility testing.
- **Newton Software Tool Updates** Updates to Newton tools are included on the Newton Developer CD. (Note: individual tool upgrades are available through regular distribution channels.)

#### Technical Support Program

**Membership Levels** Newton Developer Program members can select the program appropriate for their technical support needs. The program levels vary from the ability to purchase individual questions to receiving unlimited technical support. All questions are submitted and answered by e-mail.

#### Pricing

Program prices range from US \$250 to \$1500.

For more details on the specific program levels available at your location, visit our Web site at <http://dev.info.apple.com/newton>. For list of international contacts, please see page 42.

### Newton Developer Mailing

The Newton Developer Mailing delivers the latest essential technical and marketing information on the Newton platform. This monthly mailing consists of the following:

- **Newton Technology Journal** This bi-monthly publication provides the latest technical and business news from the Newton Systems Group, with comprehensive programming articles from Apple engineers and platform experts.
- **Newton Developer CD** The quarterly CD contains the latest sample code, Q&As, documentation, development tool updates, and platform information. (Note: most of the contents of the quarterly CD are generally made publicly available on the Internet when the next quarterly CD is shipped to subscribers.)
- **Apple Directions** This monthly newsletter has insights into Apple technologies, strategies, and priorities, as well as useful business information.
- **Newton platform news and data** You will also receive additional materials including white papers, platform guidelines, licensee news, market research, etc., which provide insights into the emerging Newton market.

#### Requirements

A computer running Mac OS or Windows with a CD-ROM drive is required for the Newton Developer CD.

#### Newton Developer Mailing (12 mailings)

R0633LL/A **\$149.00**

#### Renewal Subscription

R0634LL/A **\$149.00**

### NS BASIC Corporation

## NS BASIC 3.0

NS BASIC is a full implementation of the BASIC programming language with extensions to take advantage of the rich Newton 2.0 environment. It allows rapid development of a wide variety of applications, including forms.

Program NS BASIC directly on the Newton, or use the keyboard and screen of your Mac or PC.

NS BASIC is a completely interactive environment. You can enter and run programs immediately.

#### Features

- Create your own Newton packages
- Set up Newton style interfaces using NS BASIC's toolbox of window objects
- Capture user input using pick lists, checkboxes and handwriting
- Communicate using the serial and IR ports
- Create fully indexed files or access the built-in data
- Do graphing and scientific calculations
- Hook NS BASIC programs into other applications
- A 240-page handbook, with lots of code samples and technical notes, is included.

#### Note

NS BASIC 3.0 is supplied on Macintosh and DOS format diskettes. It runs on all Newton 2.0 devices. Version 2.5 included for Newton 1.x devices.

T1667LL/B

**\$99.00**

### Wright Strategies

## FormLogic 1.5

FormLogic is a Mac/PC development environment for the Newton, enabling users to create and deploy turnkey data collection solutions. It includes a library of data collection "agents," a comprehensive scripting language, and a full communications subsystem. It's an ideal tool for developers, VARs, and system integrators!

#### Features

- Powerful scripting language
- Form record dispatching
- Robust Server/Form Administrator
- Support of wireless LAN devices
- Report Generation/Printing

#### Requirements

**Macintosh:** Macintosh or Mac OS-compatible computer with a 68030 or greater processor; 8 MB RAM; 3 MB hard disk space; System 7.0 or later.

**PC:** IBM or IBM-compatible computer with a 80486 or greater processor; 8 MB RAM; 3 MB hard disk space; Windows 3.0 or later.

**Newton:** OS 1.3 or later (works with 2.0), 300 KB RAM.

#### Notes

Additional Newton Runtime: \$195.

#### FormLogic Builder 1.5 (Includes 1 Runtime)

T1749Z/A **\$895.00**

#### FormLogic Server 1.5

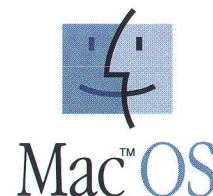
T1748Z/A **\$1,095.00**



# Macintosh Developer Resources

*Apple Computer, Inc.*

*Apple supports developers by providing timely access to technical information and marketing opportunities. Much of this information is available on the World Wide Web. We also deliver it to you on CD and in print through the Apple Developer mailings. Our highest level support offering, the Macintosh Developer Program, bundles the Apple Developer Mailing with one-to-one technical support and other premium services.*



## Macintosh Developer Program

### Features

- **Macintosh Developer Mailing** The Macintosh Developer Mailing contains the latest Apple strategies, system software, technical news and development resources (see next page for details).
- **Development Hardware Purchasing Privileges** Macintosh Developer Program members have the option to buy a designated number of Apple products at a discount to facilitate initial development. (Option not available in all countries.)
- **Seeding Opportunities** All Macintosh program members will receive pre-release versions of key Mac OS technologies.
- **Third-Party Compatibility Lab** Located in Cupertino, California, this by-appointment lab provides access to a range of Apple equipment for compatibility testing.
- **Access to Porting Lab** Also located in Cupertino, California, our Developer Technical Support engineers can assist you in porting your application to the Macintosh platform.
- **Technical Support** Macintosh Developer Program members can select the level of support appropriate for their technical needs. The program levels vary from the ability to purchase individual questions to receiving unlimited technical support. All questions are submitted and answered by e-mail.

### Pricing

Program prices range from US \$250 to \$1500.

### How to Join

For more details on the specific program levels available in the U.S. or Canada, visit our web site at <http://www.devworld.apple.com>. Or you can contact Developer Support at:

#### Asia

Phone: (852) 2506-8888  
e-mail: [ASIA.DEVSVCS@applelink.apple.com](mailto:ASIA.DEVSVCS@applelink.apple.com)

#### Australia

Phone: 61-2-452-8000  
e-mail: [AUST.DEV@applelink.apple.com](mailto:AUST.DEV@applelink.apple.com)

#### Belgium, Luxembourg

Phone: 32-2-4744290  
e-mail: [DEV.ADMIN@applelink.apple.com](mailto:DEV.ADMIN@applelink.apple.com)

#### Brazil

Phone: 5511-886-8000  
e-mail: [ALAC.DEVPROG@applelink.apple.com](mailto:ALAC.DEVPROG@applelink.apple.com)

#### France

Phone: 05 90 72 26  
e-mail: [DEV.ADMIN@applelink.apple.com](mailto:DEV.ADMIN@applelink.apple.com)

#### Germany, Austria, Switzerland

Phone: (49) 89 99640 534 or (41) 1-877-9119  
e-mail: [DEV.ADMIN@applelink.apple.com](mailto:DEV.ADMIN@applelink.apple.com)

#### Italy

Phone: 39-2-273 26 1  
e-mail: [ITA.3RDPARTY@applelink.apple.com](mailto:ITA.3RDPARTY@applelink.apple.com)

#### Japan

Phone: 81-3-5717-7520  
e-mail: [JPN.DEVSPT@applelink.apple.com](mailto:JPN.DEVSPT@applelink.apple.com)

#### Latin America

Phone: 1-305-569-2759  
e-mail: [ALAC.DEVPROG@applelink.apple.com](mailto:ALAC.DEVPROG@applelink.apple.com)

#### The Netherlands

Phone: 31 30.6593890  
e-mail: [DEV.ADMIN@applelink.apple.com](mailto:DEV.ADMIN@applelink.apple.com)

## Marketing Opportunities

Our support of your success doesn't stop with the development process. Because our customers and your customers are one and the same, we want to help raise awareness of third-party solutions. Some of the marketing resources available are:

- Market size and trends
- Customer profiles
- Channel trends
- Third-party product listings
- Package labeling programs
- Public Relations
- Events/trade shows
- Advertising
- Direct Mail
- In-box promotions
- Market support programs

Please see the *Marketing Your Products* Web page (<http://www.devworld.apple.com>) for the latest opportunities.

#### Nordic Region

Phone: 46-8-703 30 99  
e-mail: [DEV.ADMIN@applelink.apple.com](mailto:DEV.ADMIN@applelink.apple.com)

#### Spain

Phone: 34-1-663 17 80  
e-mail: [SPA.TPS@applelink.apple.com](mailto:SPA.TPS@applelink.apple.com)

#### United Kingdom, Ireland

Phone: 0800 50 50 94 or 44 131 458 6736  
e-mail: [DEV.ADMIN@applelink.apple.com](mailto:DEV.ADMIN@applelink.apple.com)

#### United States, Canada

Phone: 1-408-974-4897  
e-mail: [DEVSUPPORT@applelink.apple.com](mailto:DEVSUPPORT@applelink.apple.com)

*If you are located in Africa, Central Europe, Eastern Europe, the Mediterranean, or the Middle East, please contact your local Apple representative.*



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## Apple Developer Mailing

If you want the latest technical and business information from Apple, this subscription is for you. Every month you'll receive a copy of Apple Directions and an edition of the Developer CD Series.

### Apple Directions

Apple's monthly developer business report offers insights into Apple technologies, strategies, and priorities, as well as business information useful for developing and marketing products.

### The Developer CD Series

This comprehensive information resource is composed of a series of editions, distributed in quarterly cycles. In July, developers will receive the System Software and Mac OS SDK editions, in August the Tool Chest edition, and in September the Reference Library edition.

**System Software** Contains Macintosh system software localized in 36 languages, providing you with the ability to develop and test localized versions of your software and to ensure compatibility with a wide range of Macintosh models and OS versions. You'll also receive pre-release versions of new U.S. system software.

**Mac OS SDK** Provides convenient access to the most current Macintosh operating system software development kits published by Apple.

**Tool Chest** Offers an assortment of development tool utilities, platform and language information, and sample code.

**Reference Library** Contains a complete set of technical documentation including the *Inside Macintosh* series, Macintosh Technical Notes, *develop* magazine, *The Macintosh Programmer's Toolbox Assistant*, and *Macintosh Human Interface Guidelines*—all in electronic format.



### Special User Note

A Macintosh computer with a CD-ROM drive is required for the Developer CD Series.

**Developers interested in Newton Platform technologies will find a dedicated Newton Monthly Mailing on page 41.**

**Multimedia developers can read about the Apple Multimedia Information Mailing on page 10.**

**Apple Developer Mailing (12 mailings)**

C0197LL/B

**\$149.00**

**One-Year Renewal Subscription (12 mailings)**

R0161LL/A

**\$149.00**



This product may contain Class 1b beta release products and Class 2 restricted products. Beta releases of products are not fully tested and documented, but are expected to be completed in the future. Class 2 products are not tested, and documentation may still be in preliminary draft form.



## SDKs Included for the Following System Extensions

<b>AOCE</b>	<b>Communications Toolbox</b>	<b>Network Software Installer</b>
<b>Apple Game Sprockets</b>	<b>Control Strip</b>	<b>Open Transport</b>
<b>Apple Guide</b>	<b>Designing PCI Cards &amp; Drivers</b>	<b>QuickDraw 3D</b>
<b>Apple Remote Access API</b>	<b>Drag and Drop</b>	<b>QuickDraw GX</b>
<b>Apple Remote Access Modem</b>	<b>File System Manager</b>	<b>QuickTime</b>
<b>Apple Shared Library Manager</b>	<b>Installer</b>	<b>ScriptX</b>
<b>AppleScript</b>	<b>Macintosh Drag &amp; Drop</b>	<b>Sound Manager</b>
<b>AppleSearch</b>	<b>Macintosh Easy Open</b>	<b>Speech Recognition Manager</b>
<b>AppleShare API</b>	<b>MacODBC</b>	<b>Speech Synthesis Manager</b>
<b>AppleTalk Wide Area</b>	<b>MacSNMP</b>	<b>Telephone Manager</b>
<b>ColorSync</b>	<b>MacTCP</b>	<b>Thread Manager</b>
	<b>MacX25</b>	<b>XTND</b>

*Developer* →



Apple Computer, Inc.

## Electronic Guide to Macintosh Human Interface Design



The full electronic text of the award-winning classic book, *Macintosh Human Interface Guidelines* and its award-winning CD-ROM companion, *Making It Macintosh*, are on one convenient, easy-to-use CD. Hypertext links make for easy navigation between the book and the animated examples in *Making It Macintosh*.

### Requirements

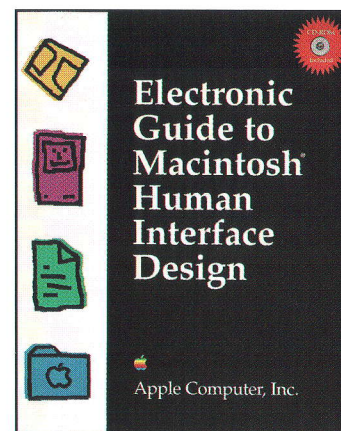
Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 8 MB RAM; System 7 or later; CD-ROM drive; 13-inch color monitor and QuickTime.

### Electronic Guide to Macintosh Human Interface Design (CD-ROM)

R0450LL/B **\$49.95**

### Macintosh Human Interface Guidelines (Book)

A7G0025/B **\$24.95**



Apple Computer, Inc.

## Inside Macintosh CD-ROM



Now you can have instant access to more than 16,000 pages of information contained in the complete *Inside Macintosh* suite—all in one place at your fingertips. Good Macintosh software applications are definitive, meticulously detailed, clearly written, and logically structured. So why shouldn't Macintosh programming reference material be the same way? As a matter of fact, it is. And now it's all on one CD.

The *Inside Macintosh* CD-ROM contains the electronic text for 25 books from *Inside Macintosh*—the essential resource for Macintosh programmers, engineers and designers.

Also included on the CD is the text

for *Macintosh Human Interface Guidelines*, an important companion to the *Inside Macintosh* series.

The CD features Apple DocViewer collection files which allow you to search the library and retrieve information in ways that are unique to the electronic medium—directly from your computer and conveniently from one CD.

You also get the *Inside Macintosh X-Ref*, which contains a master index, several specialized indexes, a list of result codes, and a glossary, all compiled from the 25 *Inside Macintosh* books.

*Inside Macintosh* CD-ROM is the ultimate electronic reference to the Macintosh programming series. If you're a Macintosh programmer, you shouldn't be without it.

### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; System 7.0 or later; CD-ROM drive.

T1575LL/A **\$89.95**

Apple Computer, Inc.

## Macintosh Programmer's Toolbox Assistant CD-ROM



Have you ever needed to find current information about using a crucial Macintosh toolbox call while in the middle of writing your application? Now with just a click of your mouse, you can get instant access to more than 5,000 toolbox calls that are at the heart of Macintosh system software. Macintosh Programmer's Toolbox Assistant is an invaluable CD-ROM database that will help you find key data structures, resources, constants, and functions when you need them the most.

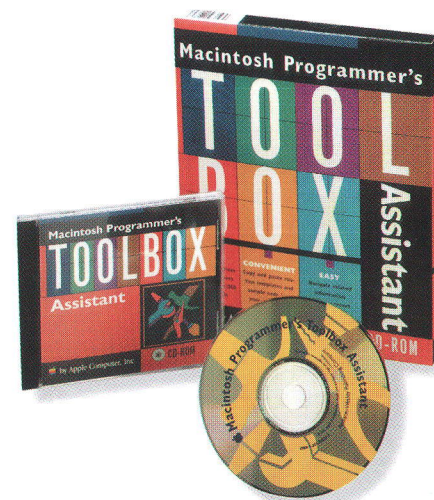
**Fast** Search and retrieve the specifications of more than 5,000 toolbox calls.

**Convenient** Copy and paste routine templates and sample code into your application.

**Easy** Navigate related information with hypertext.

### Features

- Contains all routines, data structures, and constants as documented in *Inside Macintosh*, including the QuickDraw GX and AOCCE libraries
- Uses a modern search engine technology to provide fast search and retrieval
- Is directly accessible from most of the popular Macintosh development environments
- Connects related information with abundant hypertext links to allow for easy navigation
- Indexes routines, managers, and data structures to group the information you need in the most convenient way
- Includes routine templates and sample code that can be copied and pasted into your application's source code



### Requirements

Macintosh or Mac OS-compatible computer with a 68000 or greater processor; 1 MB RAM; 20 MB hard disk space; System 7.0 or later; CD-ROM drive.

T1616LL/A **\$89.95**





# What is Developer University (DU)

*Developer University (DU) offers the latest in training for Apple developers. In modern classrooms with expert instructors, over the World Wide Web, or in a self-paced format on your desktop, you can count on getting the latest information on Apple development technologies. When you're applying new technology, you want to get it right the first time. With DU instruction, you'll develop faster, incorporate the latest technologies more quickly and appropriately, and learn development tricks from the experts—all of which will help you maintain a leadership position in your development area.*

## Why take a DU Course?

Developers report that DU courses reduce their learning cycle, save time and money, facilitate their development efforts, and shorten time to market by as much as seven weeks!

## Instructor-Led Courses

DU's instructor-led courses are lecture/lab combinations that enable you to learn from experienced systems professionals, try out new skills on the latest Macintosh hardware and exchange innovative ideas with your peers and Apple engineers. Our knowledgeable instructors will provide hands-on learning and steer you away from common pitfalls. See page 47 for course listing.

## Self-Paced Courses

DU's self-paced courses let you get the training you need on your own schedule at your location. You can learn at your own speed and at a price that's affordable. You'll practice real programming skills, use the actual development tools to build or add functionality to real applications. Some of the shorter, self-paced tutorials introduce new topics and extend your knowledge of selected topics. See course descriptions on the next page.

## Free Online Topics

DU's online topics are short, self-paced tutorials that introduce new technologies and topics in a timely and accessible manner. These are free tutorials available at our web site. Many of these are subsets of the self-paced training available through the catalog. DU online topics are available at:  
<http://dev.info.apple.com/du.html>

## Featured Course:

### QuickStart Mac OS Programming

DU's QuickStart Mac OS Programming class is a five-day classroom course for experienced C programmers who want to learn how to program on the Macintosh. If you've been programming on Windows or OS/2 and want to learn how to program on the Mac, this course is the fastest way to get started and will save you hours of time. In this course we develop an application the way one does in real-life. No one starts from scratch. You use the many developer resources to get the basis of your code and modify as necessary.

#### Class dates:

**July 8-12, August 19-23,  
September 30-October 4**

**\$1,500.00**

## What Developers Say (without prompting)

*"The instructor gave real life experiences that were very helpful in understanding the subject matter."—Karen G.*

*"I had been trying to get started on my own for a while but it was not easy. This course provided me with the base I needed and in only a week!"—Robert K.*

*"I have already recommended this class to a co-worker!"—Mark W.*

For more information on all of our classes, see our Web site at <http://dev.info.apple.com/du.html>, or call us at 1-408-974-4897.

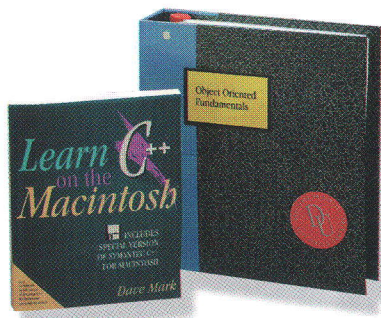
*Developer* →





## Self-Paced Training

*Developer University's self-paced courses put affordable training on your desktop, making it available when and where you need it.*



### Object-Oriented Fundamentals 1.1

Learn what object-oriented programming is all about. If you are a C programmer who wants to move up to C++ this is the self-paced training course for you. DU's multimedia Object-Oriented Fundamentals course enables you to easily make the paradigm shift from procedural to object-oriented design. It will introduce you to the entire object skill

set, from general concepts through analysis and design. This course assumes that you will be using Metrowerks CodeWarrior integrated development environment in the labs. A "lite" version of CodeWarrior is included with the course. Symantec's C++ integrated development environment will work with the labs as well but is not included. This course also includes a copy of the book *Learn C++ on the Macintosh* by Dave Mark.

#### Training Format

*Interactive multimedia with labs.*

#### Requirements

*Macintosh or Mac-OS compatible computer with a 68020 or greater processor; 12 MB RAM; 20 MB disk space; System 7.5; CD-ROM drive.*

#### Prerequisites

*You must be able to program a simple application in C on any platform.*

R0560LL/B

**\$245.00**

### Apple Events/AppleScript Programming Tutorial

Learn how to make your application scriptable and recordable by using Apple Events Object Model. This course will cover the Object Support Library, the Apple Event registry, and application architecture. This self-paced disk/workbook tutorial teaches you the basics of Apple's scripting architecture using core modules from Developer University's classroom course. The labs require Think C 7.0 or later.

Before taking this class, you should know the C programming language, and have written at least one Macintosh application.

#### Training Format

*Tutorial with labs.*

#### Requirements

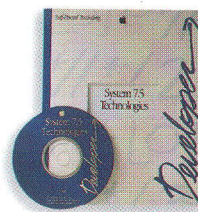
*Macintosh or Mac-OS compatible computer with a 68020 processor or greater; 4 MB RAM; 10 MB hard disk space; System 7 or later; CD-ROM drive.*

R0224LL/B

**\$95.00**

### System 7.5 Technologies

This self-paced course is designed to allow software developers to write code that extends the functionality of an application for System 7.5. It contains comprehensive materials for drag and drop, threads, standard mail package, and QuickDraw GX printing. Students should be familiar with the basics of developing an application on the Macintosh. CodeWarrior Lite is included on the CD with the lab exercises.



#### Training Format

*Tutorial with labs.*

#### Requirements

*Macintosh or Mac-OS compatible computer with a 68020 processor or greater (PowerPC preferred); 8 MB RAM; 25 MB hard disk space; System 7.5 or later; CD-ROM drive.*

#### Note

*The lab assignments use Metrowerks CodeWarrior 8. A "lite" version of CodeWarrior is included on the CD. The labs can also be done in another develop-*

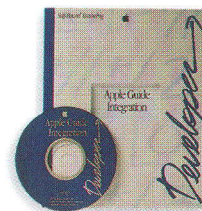
*ment environment, such as Symantec C++ or Macintosh Programmer's Workshop, but you will have to "translate" some of the instructions for operations that are environment-dependent.*

R0695Z/A

**\$49.95**

### Apple Guide Integration

This self-paced overview teaches you when and how to add Apple Guide help to your program. A positive user experience means getting the task done with a minimum of hassle. But as applications engage in the features race, their complexity increases as well, leading to increased user frustration. One solution is to add a powerful help system that can guide the user through a task. Apple Guide makes this chore easier than you might think. This tutorial will lead you through the steps necessary to integrate Apple Guide. CodeWarrior Lite is included on the CD with the lab exercises.



#### Training Format

*Overview with labs.*

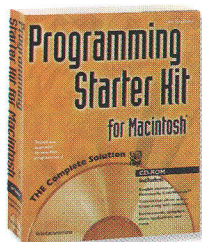
#### Requirements

*Macintosh or Mac-OS compatible computer with 68020 processor or greater, PowerPC preferred; 8 MB RAM; 25 MB hard disk; System 7.5 or later; CD-ROM drive.*

R0696Z/A

**\$49.95**

## Featured Book



Hayden Books

### Programming Starter Kit for Macintosh

This all-in-one kit contains everything you need to get started with the world of Macintosh programming! Featuring valuable tools on CD-ROM, this book teaches the skills and techniques necessary for successful development. It includes a "lite" version of Metrowerks CodeWarrior for doing the lab exercises.

T1742Z/A

**\$45.00**

Orders are shipped within 24 hours. **Order Monday through Friday, 7am-5pm, PST.** U.S.: 1-800-282-2732



## Online Topics

We're continuing to explore new ways to use the Internet. Check out our latest free topics available on the web: System 7.5 Technologies and Apple Guide Integration. These are subsets of our complete self-paced training products. The complete hard copy versions with labs and lite development environment are available for sale through the Apple Developer Catalog.

Coming soon: *Using Sprockets for Game Developers*; *Getting Started With Apple Media Tool*

## What's on the Web?

- **System 7.5 Technologies**
- **Apple Guide Integration**
- **Cyberdog Tutorial**
- **What is Mac OS 8?**

## How do you find our Web overviews?

<http://dev.info.apple.com/du.html>



## Classroom Training

DU classroom courses bring you training in the latest Apple technologies. Classes are offered on-site in Cupertino, CA, and at selected extension sites. For complete descriptions, prerequisites, target audience information, and registration, **contact the DU Registrar at 1-408-974-4897**, or check out our Web page at: <http://dev.info.apple.com/du.html>.

### Creating Apple Guide Help Systems

Four Days **\$800**  
 August 19-22  
 Learn how to create an on-line help system with Apple Guide, the powerful task-oriented help system for the Macintosh.

### Creating OpenDoc Parts

Five Days **\$1,500**  
 July 15-19, August 12-16,  
 Sept. 16-20, Oct. 28-Nov. 1  
 Learn how to create parts using the OpenDoc Development Framework, Apple's cross-platform framework for OpenDoc.

### Macintosh Debugging Strategies & Techniques

Four days **\$800**  
 July 8-11  
 Gain experience debugging using source-level and machine-level debuggers. This is a class and debugging lab combined.

*For location, pricing, and enrollment information on courses offered at our East Coast location, contact Simon/Ross and Associates, a DU Extension, at 1-416-960-5647 or, outside of Toronto, at 1-800-714-5714.*

### Multimedia Development with QuickTime VR

Three days **\$900**  
 July 16-18, July 30-August 1,  
 August 13-15, Sept. 17-19, Oct. 15-17  
 Learn to create the next generation of multimedia applications using QuickTime VR, Apple's award winning non-linear panoramic movie format.

### Newton Essentials 2.0

Five days **\$995**  
 July 22-26, Sept. 9-13  
 Learn about Newton's hardware and software architecture, NewtonScript, and Newton Toolkit.

### Programmer's Overview of Mac OS 8

One day **\$200**  
 July 26, Aug. 30, Sept. 27  
 The Programmer's Overview of Mac OS 8 will discuss the main components of the Mac OS 8, their functionality and their interrelationships. The course will give you a first hand look at the new components and API changes. Lecture only.

### Programming with QuickDraw 3D

Three days **\$600**  
 July 22-24, Sept. 9-11  
 Add a new dimension to your Macintosh applications by learning to use Apple's new QuickDraw 3D graphics library.

### QuickStart Mac OS Programming

Five days **\$1,500**  
 July 8-12, August 19-23,  
 Sept. 30-Oct. 4  
 Quickly learn how to get started programming for the Mac OS. If you are a C programmer from any platform and not afraid to get your hands dirty, then this intensive five day class is for you.

### Scripting with AppleScript

Two days **\$600**  
 Sept. 9-10  
 Learn how to write your own scripts to customize activities such as mail merge, communications, mail handling, data exchange between applications, and others.

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Apple Computer, Inc.

## develop, The Apple Technical Journal

*develop*, Apple's award-winning quarterly technical journal, contains full-length articles, columns, and Q&As that will help reduce your development time and enhance your programming savvy.

Each issue comes with the latest *develop* Bookmark CD. This CD contains a subset of the materials on the Developer CD Series, which is part of the Apple Developer Mailing available through the *Apple Developer Catalog*. Included on the CD are the current issue of *develop* and all back issues, along with the code that the articles describe. The CD also contains Technotes, sample code, and other documentation and tools.

**Special User Note:** A Macintosh or Mac OS-compatible computer with a CD-ROM drive is required for the Bookmark CD.

**develop (4 issues and 4 CDs)**

M0929LL/B **\$27.00**

**develop (renewal; 4 issues and 4 CDs)**

R0658LL/A **\$27.00**

Individual issues of *develop* are also available.

Recent issues include:

**Issue 26:** Mac OS 8 Compatibility; QuickTime Conferencing; OpenDoc Parts and SOM Dynamic Inheritance; Adding Custom Data to QuickDraw 3D Objects; 64-Bit Integer Math on 680x0 Machines.

030-861326 **\$10.00**

**Issue 25:** Generating QuickTime VR Movies From QuickDraw 3D; Flicker-Free Drawing With QuickDraw GX; NURB Curves; C++ Exceptions in C; Localized Strings for the Newton.

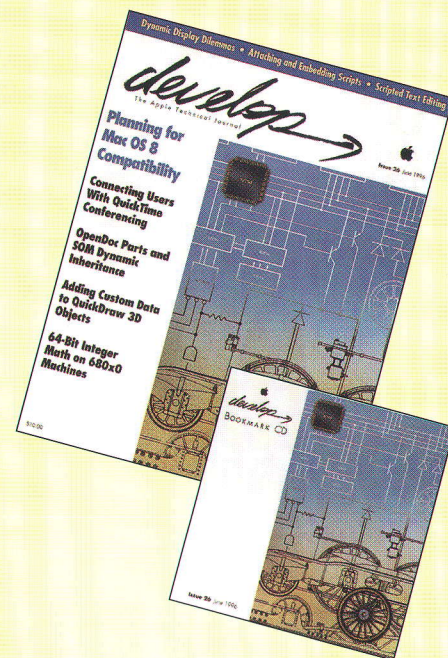
030-861325 **\$10.00**

**Issue 24:** Speeding Up whose Clause Resolution; OpenDoc Storage; Sound; Alert Guidelines; Printing Images Faster With Data Compression.

030-861324 **\$10.00**

**Issue 23:** QuickTime Music Architecture; QuickDraw 3D Geometries; Internet Config; Multipane Dialogs; Document Synchronization; ColorSync 2.0.

030-861323 **\$10.00**



Addison-Wesley Publishing Company

## Essential OpenDoc

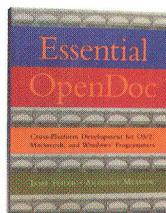
Jesse Feiler and Anthony Meadow

Developed by Apple, IBM, and Novell, OpenDoc enables the development of a new class of applications for Windows, Macintosh, OS/2, UNIX, and other personal computer platforms. It is supported by CI Labs, a unique industry-wide consortium of hardware and software developers. *Essential OpenDoc* introduces basic OpenDoc concepts and explains the implications of this exciting software architecture for developers, consultants, system integrators, and solution providers.

This book provides an in-depth look at the technical issues of OpenDoc and explores the three core technologies that support its functionality, including The System Object Model (SOM), OpenDoc's storage mechanism, and The Open Scripting Architecture.

*Essential OpenDoc* also examines Cyberdog, a set of OpenDoc part editors that provides access to Internet services and offers a compelling example of the power of OpenDoc development.

T1927Z/A **\$24.95**



Addison-Wesley Publishing Company

## OpenDoc Programmer's Guide

Apple Computer, Inc.

The *OpenDoc Programmer's Guide* shows how to develop for OpenDoc on the Mac OS platform, using three different sections.

Section 1 explains what parts and part editors are, how embedding works, and how you should approach your development project.

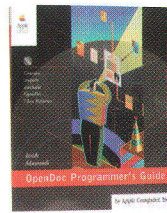
Section 2 describes OpenDoc programming in detail. It includes chapters on embedding, drawing, menus, windows, storage, data transfer, scripting, and extending OpenDoc.

Section 3 provides guidelines for presenting the correct interface to your users.

The *OpenDoc Programmer's Guide* also includes an extensive glossary of OpenDoc terms and appendixes with checklists to speed your programming efforts.

The included CD-ROM contains the OpenDoc Class Reference, the complete reference to the OpenDoc programming interface, and extensive sample code and programming "recipes" from the OpenDoc development team.

T1861Z/A **\$44.95**



Addison-Wesley Publishing Company

## OpenDoc Cookbook

Apple Computer, Inc.

This companion book to the *OpenDoc Programmer's Guide* shows how to create OpenDoc software components, called part editors, for the Mac OS platform. The *OpenDoc Cookbook* contains source code for a complete but basic part editor implemented by the OpenDoc engineering team at Apple Computer to illustrate the correct way to code to the OpenDoc programming interface. The source code is accompanied by step-by-step explanations.

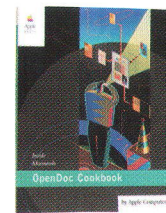
### Features

- Instructions for setting up the MPW development environment to write OpenDoc software
- Annotated listings explaining the methods that implement the SamplePart part editor
- Descriptions of other sample part editors created by the OpenDoc engineering team to illustrate more advanced features
- An introduction to the System Object Model (SOM) technology underlying OpenDoc

### Note

Source code files for the SamplePart part editor and other example part editors are included on the CD-ROM that comes with the *OpenDoc Programmer's Guide*.

T1926Z/A **\$24.95**







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5	10.00	21.00	30.00	37.00	52.00	92.00
6-10	12.00	25.00	33.00	41.00	62.00	102.00
11-15	15.00	28.00	38.00	51.00	72.00	122.00
16-20	18.00	32.00	45.00	61.00	82.00	142.00
21-25	20.00	38.00	54.00	71.00	92.00	162.00
26-30	23.00	43.00	60.00	76.00	102.00	182.00
31-35	26.00	48.00	70.00	81.00	112.00	202.00
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## C++ Programming with CodeWarrior: Beginning OOP for the Macintosh and Power Macintosh

Jan L. Harrington

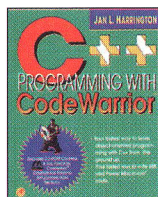
1995

400 pages with CD-ROM

This book teaches programming novices object-oriented programming techniques for the Macintosh and the Power Macintosh, using C++ as the example language and Metrowerks CodeWarrior as the example compiler.

### Features

- Designed for programming novices who want to learn object-oriented programming from the ground up



- Gives examples specific to Metrowerks CodeWarrior
- Includes introduction to key concepts of object-oriented programming, such as classes and inheritance
- Comes with working version of CodeWarrior C++ compiler to execute sample programs and complete programming challenges presented in the book

### Note

CD-ROM also includes source code for easy implementation

T1924Z/A

**\$34.95**

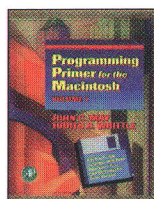
## Programming Primer for the Macintosh, Volume 1

John May and Judy Whittle

1994

352 pages with disk

Provides an introduction to Macintosh programming, using C++ as the example language. This book uses realistic, easy-to-follow programming examples designed to work with either Symantec C++ or Metrowerks



CodeWarrior. Features in-depth coverage of Macintosh C++ programming style, memory management, object-oriented programming techniques, debugging and Finder resources, and Macintosh Toolbox and Toolbox managers like the Alert Manager, the Dialog Manager, and QuickDraw.

### Features

- Provides a stepwise introduction to new topics, numerous practical examples, and a creative balance of text, source code, and graphics

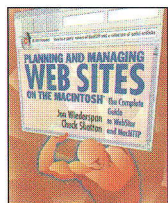
Addison-Wesley Publishing Company

## Planning and Managing Web Sites on the Macintosh: The Complete Guide to WebSTAR and MacHTTP

Jon Wiederspan and Chuck Shotton

1995

384 pages with CD-ROM



This book is a definitive guide to setting up and running a Web site on the Macintosh, written by two acknowledged experts in the field. It skillfully teaches you everything you need to know about using WebSTAR, the best known

MacHTTP server software, and its shareware predecessor MacHTTP, as well as programming guides for writing CGI applications for your server. A special version of WebSTAR, plus tons of useful software, are on the CD-ROM.

Jon Wiederspan is the Director of Technical Services at ComVista Internet Solutions, Inc.

Chuck Shotton is the author of MacHTTP and WebSTAR. He is a senior vice president of engineering at StarNine, where he oversees development of WebSTAR and other Internet software.

T1831Z/A

**\$39.95**

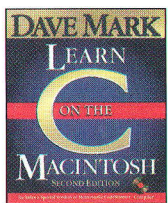
Addison-Wesley Publishing Company

## Learn C on the Macintosh, Second Edition

Dave Mark

1995

496 pages with CD-ROM



Anyone who can use a Macintosh can learn C, and all the information needed to do it is right here! *Learn C on the Macintosh, Second Edition*, has been revised and updated to include fresh code, enhanced lessons, and a CD-ROM with sample code and

CodeWarrior Lite, a special version of the development environment from Metrowerks.

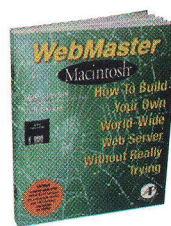
Dave Mark is one of the world's leading teachers and best-known authorities on Macintosh programming. He is a columnist for *MacTech* magazine, and his company, SpiderWorks, specializes in custom Macintosh development. He is the author of several bestselling Macintosh programming books including *Learn C++ on the Macintosh* and the *Macintosh Programming Primer* series.

T1886Z/A

**\$34.95**

## WebMaster Macintosh

Bob LeVitus and Jeff Evans



Learn how to turn your Macintosh into a World Wide Web server and create professional quality Web pages. This new book is packaged with a CD-ROM containing all the software necessary to make this happen.

T1777Z/A

**\$29.95**

- Includes floppy disk with source code for programming examples that will compile with both Symantec C++ and Metrowerks CodeWarrior, plus public domain utilities to use with each compiler

T1925Z/A

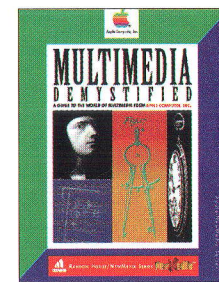
**\$37.95**

Random House Electronic Publishing

## Multimedia Demystified, A Guide to the World of Multimedia from Apple Computer, Inc.

Apple Computer, Inc.

1994



A comprehensive look at the markets, media, and organizations that make up the multimedia industry. Much of the material is based on interviews with multimedia developers who have successfully moved from an initial spark to a completed product.

T1115LL/B

**\$29.00**

### Note

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Learn how to manage various low-level aspects of the Macintosh Operating System and how to handle issues that are not specifically related to files, memory, or process execution.

T1553LL/A **\$28.95**

#### Inside Macintosh: Processes

A detailed look at the parts of the Macintosh operating system that allow you to control the execution of processes and interrupt tasks.

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#### Inside Macintosh: QuickDraw GX Graphics

Shows you how to create and manipulate the fundamental geometric shapes of QuickDraw GX to generate a vast range of graphics entities.

T1113LL/A **\$31.95**

#### Inside Macintosh: QuickDraw GX Objects

A must read before tackling any other books in the QuickDraw GX suite—starts with an overall introduction to QuickDraw GX, and then describes how you can create and draw graphical and text elements using fundamental objects.

T1430LL/A **\$31.95**

#### Inside Macintosh: QuickDraw GX Printing Extensions and Drivers

Discover how you can quickly build printer drivers for existing and new output devices, resulting in Macintosh support for an even greater range of output devices.

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#### Inside Macintosh: QuickDraw GX Environment and Utilities

A complete reference to the essential supporting components of QuickDraw GX that describes important features of the QuickDraw GX programming environment.

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#### Inside Macintosh: QuickDraw GX Typography

A comprehensive overview of typographic concepts complete with numerous examples and reference material for the data structures and functions you can use to create text with QuickDraw GX.

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#### Inside Macintosh: QuickDraw GX Printing

A detailed look at how to implement printing in the QuickDraw GX environment as well as how to support printing-related dialog boxes and events, implement a print loop, customize printing features, and more.

T1551LL/A **\$28.95**

#### Inside Macintosh: QuickDraw GX Programmer's Overview

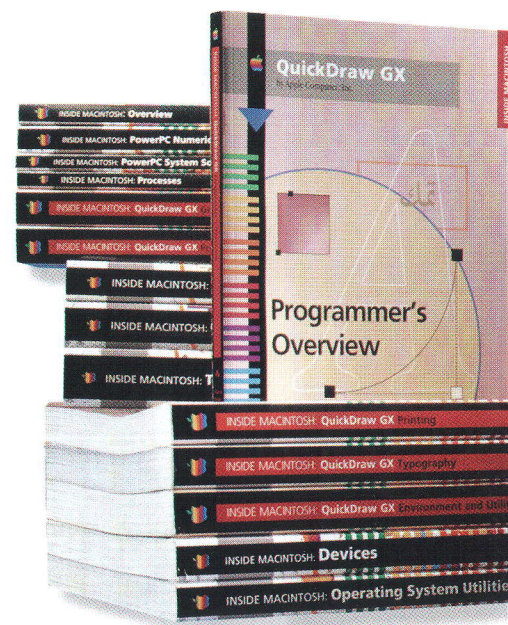
Gets you started programming with QuickDraw GX by revealing the universe of QuickDraw GX object architecture, graphics, typography, printing features, run-time, and debugging environments.

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The official reference to the Color Picker, the Color Sync Manager, the Palette Manager, and the Color Manager. Includes conceptual information and code samples on CD-ROM, with step-by-step instructions for extending your color capabilities.

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### Inside Macintosh: Devices

An essential reference for writing a Macintosh device driver or desk accessory.

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Get conversant with QuickDraw, the part of the Macintosh Toolbox that performs graphics operations, and the Printing Manager, which allows applications to print the images created with QuickDraw.

T1109LL/A **\$32.95**

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Learn how to make your application work with other applications to give users even greater power and flexibility.

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Covers key concepts of networking the Macintosh with other computers and describes in detail the components and organization of AppleTalk networking protocols.

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### Inside Macintosh: Text

Learn how applications perform text handling, from simple character display to multilanguage text processing.

T0564LL/A **\$39.95**

### Inside Macintosh: X-Ref

Provides a quick and easy way to find the exact information you need in the *Inside Macintosh* series, the essential resource for Macintosh programmers, engineers, and designers.

T1659LL/A **\$19.95**

### 3D Graphics Programming with QuickDraw 3D

T1724Z/A **\$39.95**

## Visual Environment

### Inside Macintosh: Macintosh Toolbox Essentials

The essentials of how to implement user interface components in Macintosh applications, such as menus, windows, scroll bars, and dialog boxes.

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### Inside Macintosh: More Macintosh Toolbox

The ideal companion to *Inside Macintosh: Macintosh Toolbox Essentials*.

T0627LL/A **\$34.95**

### Inside Macintosh: Overview

Focuses on Macintosh "look and feel," human interface principles, the desktop metaphor, the event loop, resources, collaborative computing, and programming languages and tools.

R0359LL/A **\$22.95**

## AOCE

### Inside Macintosh: AOCE Application Interfaces

Learn about the application interfaces to the Apple Open Collaboration Environment and how to add electronic mail capabilities to applications, write messaging applications, store and retrieve information from PowerShare and other AOCE catalogs.

T1535LL/A **\$44.95**

### Inside Macintosh: AOCE Service Access Modules

The book to read if you want to extend the capabilities of the PowerTalk—learn how to add catalog and messaging services to those available through PowerTalk system software and PowerShare collaboration servers.

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### Inside Macintosh: PowerPC Numerics

Covers the floating-point numerics environment provided with the first release of the PowerPC processor and describes the IEEE standard 754 for binary floating-point arithmetic and how PowerPC numerics comply with it.

T1111LL/A **\$28.95**

### Inside Macintosh: PowerPC System Software

Learn about the new process-execution environment and system software services provided with the first release of Power Macintosh computers.

T1112LL/A **\$24.95**



## Additional Books

## Multimedia

**Computer Graphics: Principles and Practice, Second Edition**

Addison-Wesley Publishing Company  
James D. Foley, 1995; 1112 pages

Comprehensive, authoritative, and up-to-date, this is the standard computer graphics reference work for the 1990s.

T11887Z/A \$68.95

**Desktop Video Studio**

Random House Electronic Publishing  
Andrew Soderberg and Tom Hudson, 1995

Book and CD-ROM provide essential background information on creation and processing of digital video with a primer section, tips and techniques, and case studies.

T1736Z/A \$45.00

**How to Digitize Video**

John Wiley & Sons, Inc.

Book and CD-ROM guide you through hardware and software selection, video capture and conversion, storage, editing, and playback.

T1662LL/A \$39.95

**Multimedia Demystified, A Guide to the World of Multimedia from Apple Computer, Inc.**

Random House Electronic Publishing  
Apple Computer, Inc., 1995

See ad on page 49. This book is included with subscription to Apple Multimedia Information Mailing on page 10.

T1115LL/B \$29.00

**QuickTime: The Official Guide for Macintosh Users**

Hayden Books  
Judith L. Stern and Robert A. Lettieri, 1994; 343 pages

Book and CD-ROM enable you to create, edit, and play QuickTime movies on your Macintosh. Get started with basics then move to advanced tasks.

T1678LL/A \$45.00

**Sex, Lies, and Video Games: How to Write a Macintosh Arcade Game**

Addison-Wesley Publishing Company  
Bill Hensler

Exposes you to the techniques of producing games on the Macintosh—games with captivating animation and sounds. No previous game programming experience necessary, just the ability to write a program with standard interface elements.

T1835Z/A \$34.95

**3-D Starter Kit for Macintosh**

Hayden Books  
Sean Wagstaff, 1994; 486 pages

The complete reference to 3D graphics on the Macintosh—ideal for beginning to intermediate illustrators, graphic designers, multimedia developers, and animators.

T1892Z/A \$40.00

**Tricks of the Mac Game Programming Gurus**

Hayden Books  
Jamie McCormack, 1995; 900 pages

Comprehensive Mac game programming sourcebook to turn to for information.

T1890Z/A \$50.00

## Languages and Environments

**Algorithms, Second Edition**

Addison-Wesley Publishing Company  
Robert Sedgewick, 1988

A survey of important algorithms and data structures, including arithmetic and numerical methods.

T0175LL/B \$44.25

**C++ Programming Language, The Second Edition**

Addison-Wesley Publishing Company  
Bjarne Stroustrup, 1991, AT&T Bell Laboratories

This definitive guide, written by the designer of C++, covers all the features in the most recent release.

T0191LL/B \$34.50

**C++ Programming with CodeWarrior: Beginning OOP for the Macintosh and Power Macintosh**

AP Professional  
Jan L. Harrington, 1995; 400 pages

Teaches programming novices object-oriented programming techniques. See ad on page 49.

T1924Z/A \$34.95

**Essential OpenDoc**

Addison-Wesley Publishing Company  
Jesse Feiler and Anthony Meadow

Introduces basic OpenDoc concepts and explains the implications of this exciting software architecture for developers. See ad on page 48.

T1927Z/A \$24.95

**Foundations of Mac Programming**

IDG Books  
Dan Parks Sydow, 1995; 708 pages

Covers the basics, from resources to QuickTime movies. Includes CD-ROM with code for Symantec C++ 8.0 and Metrowerks CodeWarrior.

T1899Z/A \$39.95

**How to Write Macintosh Software, Third Edition**

Addison-Wesley Publishing Company  
Scott Knaster and Keith Rollin, 1992

An excellent source for key Macintosh programming issues like memory management and debugging techniques.

T0150LL/B \$28.95

**Inside CodeWarrior 9**

Metrowerks Inc.

Provides in-depth information about the CodeWarrior development environment.

T1648LL/D \$34.95

**Inside PowerPlant for CodeWarrior 9**

Metrowerks Inc.

Printed documentation for Metrowerks CodeWarrior 9 PowerPlant application framework.

T1902Z/B \$34.95

**Learn C on the Macintosh, Second Edition**

Addison-Wesley Publishing Company  
Dave Mark, 1995

See ad on page 49.

T1886Z/A \$34.95

**Learn C++ on the Macintosh**

Addison-Wesley  
Dave Mark, 1993

Self-paced book/disk package with comprehensive tutorial in programming fundamentals and C++ language basics.

T0823LL/A \$36.95

**Macintosh C Programming Primer, Volume I, Inside the Toolbox Using THINK C, 2nd Edition**

Addison-Wesley Publishing Company  
Dave Mark and Cartwright Reed, 1992

Covers event-driven programming, windows manipulation, menus, dialog boxes, file management, and more.

T0256LL/B \$26.95

**Macintosh C Programming Primer, Volume II, Mastering the Toolbox Using THINK C, 2nd Edition**

Addison-Wesley Publishing Company  
Dave Mark, 1990

Covers advanced usage of Symantec's THINK C compiler by creating a series of applications focused on the Macintosh Toolbox.

T0402LL/A \$24.95

**Macintosh Programming Secrets, Second Edition**

Addison-Wesley Publishing Company  
Scott Knaster, 1992

Dozens of hints, tips, and insights on how to take full advantage of tools available in Macintosh system software.

T0157LL/B \$29.95



**Mastering the THINK Class Library**

Addison-Wesley Publishing Company  
Richard O. Parker; 496 pages

Provides a thorough examination of Symantec's extensive Class Library and the Visual Architect interface development tool. Includes complete description of TCL, explanations of all code generated by the Visual Architect, and tutorials to simplify Mac application development.

T1730Z/A \$29.95

**Metrowerks CodeWarrior Programming**

Henry Holt & Company  
Dan Parks Sydow

The authorized guide to CodeWarrior, giving you complete coverage of the Gold edition of this exciting compiler. You'll be able to rapidly develop applications for the 68K and Power Macintosh computers with the techniques you learn from this book. Companion CD-ROM includes CodeWarrior Lite—a limited version of CodeWarrior.

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**More Mac Programming Techniques**

Henry Holt & Company  
Dan Parks Sydow

Go beyond the fundamentals of Macintosh programming with this hands-on guide and tutorial. Expand on the basic foundation of programming to create powerful applications, learning solid techniques you can apply anywhere.

T1715Z/A \$34.95

**OpenDoc Cookbook**

Addison-Wesley Publishing Company

This companion book to the OpenDoc Programmer's Guide shows how to create OpenDoc software components. See ad on page 48.

T1926Z/A \$24.95

**OpenDoc Programmer's Guide for the Mac OS**

Addison-Wesley Publishing Company, 1995

See ad on page 48.

T1861Z/A \$44.95

**Optimizing PowerPC Code**

Addison-Wesley Publishing Company  
Gary Kacmarcik; 704 pages

To take full advantage of the speed and features of the PowerPC chip, you need to master assembly language techniques. Written by an expert, this book provides hard-core, cross-platform help at the assembly language level.

T1731Z/A \$39.95

**Power Macintosh Programming Starter Kit**

Hayden Books  
Tom Thompson

This book and CD-ROM combo takes you on a tour of the entire Power Macintosh environment.

T1864Z/A \$39.95

**Programming Primer for the Macintosh, Volume 1**

AP PROFESSIONAL  
John May and Judy Whittle, 1994; 352 pages

An introduction to Macintosh programming, using C++ as the example language. See ad on page 49.

T1925Z/A \$37.95

**Programming QuickDraw**

Addison-Wesley Publishing Company  
David A. Surovell, Fred M. Hall, and Konstantin Othmer, 1993

Describes how to develop software using QuickDraw and the rest of the graphics managers in the Macintosh Toolbox. Illustrated and accompanied by functional source code examples.

T0603LL/A \$26.95

**Programming Starter Kit for Macintosh**

Hayden Books  
Jim Trudeau, 1995; 600 pages

This all-in-one kit contains everything you need to get started with the world of Macintosh programming! See ad on page 46.

T1742Z/A \$45.00

**Programming the PowerPC: Programming Native Applications for the New Power Macintosh**

Henry Holt & Company  
Dan Parks Sydow

Complete introduction to the world of RISC computing. Learn how to program effectively for the 68LC040 emulator.

T1867Z/A \$39.95

**Symantec C++ Programming for the Macintosh**

Prentice Hall Computer Publishing  
Neil Rhodes and Julie McKeehan, 1992

Learn C++ programming for the Macintosh with this practical, hands-on guide and sample code disk.

T0606LL/A \$39.95

**THINK Reference 2.0**

Symantec Corporation

Indispensable reference with electronic versions of the six original Inside Macintosh volumes.

T0467LL/B \$89.00

**Internet****How to Set Up and Maintain a World Wide Web Site: The Guide for Information Providers**

Addison-Wesley Publishing Company  
Lincoln D. Stein, 1995; 352 pages

Covers all the essentials of designing, configuring, maintaining, and expanding a Web site using the most popular software packages.

T1885Z/A \$29.00

**Internet Starter Kit for Macintosh, Third Edition**

Hayden Books  
Adam C. Engst, 1995; 900 pages

Your ticket to the world of the Internet, this book provides all the information and software you need to get on the Net.

T1891Z/A \$35.00

**Planning and Managing Web Sites on the Macintosh: The Complete Guide to WebSTAR and MacHTTP**

Addison-Wesley Publishing Company  
Jon Wiederspan and Chuck Sbotton

See ad on page 49.

T1831Z/A \$39.95

**Publishing on the World Wide Web for Macintosh**

Hayden Books  
Greg Holden, 1995; 450 pages

Reference tool for all people and businesses that want to learn about publishing on the World Wide Web.

T1889Z/A \$30.00

**Webmaster Macintosh**

AP Professional  
Bob LeVitus and Jeff Evans

See ad on page 49.

T1777Z/A \$29.95

**Solutions****Apple Event Registry: Standard Suites**

Apple Computer, Inc.  
R0130LL/A

\$85.00

**Apple Guide Complete**

Addison-Wesley Publishing Company

Everything you need to successfully produce guide files, including Guide Maker, is in this book and CD-ROM package.

T1650LL/A \$39.95

**Applied Mac Scripting**

Henry Holt & Company  
Tom Trinko

Learn to use AppleScript and Frontier scripting environments with this hands on tutorial. Presents an overall approach to designing and developing powerful scripts, with valuable new techniques for Macintosh automation.

T1713Z/A \$34.95

**AppWare Programming Primer**

Addison-Wesley Publishing Company  
Eric Weidl; 352 pages

Provides the ideal introduction to Novell's AppWare programming environment (see page 30). Included PC disk has pre-assembled applications that can be linked together without coding.

T1728Z/A \$34.95



**Complete Handbook for HyperCard 2.2, The, Fourth Edition**

Random House Electronic Publishing  
 Danny Goodman, 1993; 1,184 pages

Shows how to build working applications using the latest edition of HyperCard (see page 31). Covers text, painting tools, extension commands (XCMDs), scripting in HyperTalk, and more. This is the biggest-selling Macintosh book.

T1090LL/A \$35.00

**Danny Goodman's Apple Guide Starter Kit**

Addison-Wesley Publishing Company  
 Danny Goodman and Jeremy Joan Hewes, 320 pages

Make guides quickly and easily, without learning a scripting language, using advice and tips on how to design a good guide.

T1727Z/A \$34.95

**Danny Goodman's AppleScript Handbook, Second Edition**

Random House Electronic Publishing  
 Danny Goodman, 576 pages

Shows how to integrate functions, automate processes in Finder and third-party applications, and more. Comes with hundreds of dollars of software on the included disk; this package is complete and requires no programming experience.

T1733Z/A \$40.00

**HyperTalk 2.2: The Book, Second Edition**

Random House Electronic Publishing  
 Danny Goodman, Dan Winkler, Scot Kamins, Jeanne Devoto, 1993

The most complete, authoritative source on HyperTalk 2.2 programming and troubleshooting, covers each language element—including quirks and bugs.

T1089LL/A \$35.00

**Real World Apple Guide**

Henry Holt & Company  
 Jesse Feiler

Learn how to develop assistance, use it effectively, incorporate it into applications, combine it with existing applications, and provide custom solutions. Book and CD package provides tutorials and examples to write and compile Apple Guide files.

T1714Z/A \$39.95

**Newton****Programming for the Newton**

AP Professional  
 Julie McKeeban and Neil Rhodes

An indispensable tool for Newton programmers; learn how to develop software for the Newton, including key concepts of object-oriented programming to facilitate use of NewtonScript. Included disk has sample code for examples and a demonstration version of Newton Toolkit.

T1434LL/A \$29.95

**Wireless for the Newton**

AP Professional /Harcourt Brace  
 Julie McKeeban and Neil Rhodes

Picks up where Programming for the Newton left off, with more detailed instruction on creating Newton software.

T1778Z/A \$34.95

**Technical References****A Fragment of Your Imagination**

Practical help for creating code resources and code fragments for the Macintosh and Power Macintosh, with thorough explanations about how the Macintosh system functions as a whole.

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**Advanced Color Imaging on the Mac OS**

The official reference to the Color Picker, the Color Sync Manager, the Palette Manager, and the Color Manager. Includes conceptual information and code samples on CD-ROM, with step-by-step instructions for extending your color capabilities.

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**Apple CD-ROM Handbook—A Guide to Planning, Creating, and Producing a CD-ROM**

Addison-Wesley Publishing Company  
 Apple Computer, Inc., 1992

Takes you step-by-step through the process of producing a CD-ROM, addressing planning, production, legal, and financial considerations.

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Apple Computer, Inc.

Includes extensive alphabetical listing of rules, style, and usage for terms found in Apple manuals.

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**AppleTalk Update-Based Routing Protocol (AURP) Technical Specifications**

Apple Computer, Inc.

Specifications that give detailed information about AURP and wide-area networking.

R0463LL/A \$25.00

**Breaking Through, A Technical Guide for the Design and Development of CD-ROMs**

Apple Computer, Inc., 1994

Technical companion to the Apple CD-ROM Handbook that looks at the stages of CD-ROM production, including necessary hardware, software, and procedures. Included with subscription to Apple Multimedia Information Mailing (see page 10).

T1116LL/A \$14.95

**Guide to Macintosh Software Localization**

Addison-Wesley Publishing Company  
 Apple Computer, Inc., 1992

Full of practical information that provides an overview of localization issues such as language, graphics, and documentation.

M1528LL/B \$24.95

**Inside AppleTalk, Second Edition**

Addison-Wesley Publishing Company  
 Apple Computer, Inc., 1989, 1990

Shows how to create applications that work with the AppleTalk Network System.

C0078LL/B \$34.95

**Inside the Macintosh Communications Toolbox**

T1747Z/A \$26.95

**Localization for Japan**

Apple Computer, Inc.

Descriptions of Japanese personal computer standards, online services, and business practices.

R0250LL/A \$20.00

**Planning and Managing AppleTalk Networks**

Addison-Wesley Publishing Company  
 Apple Computer, Inc., 1991

Comprehensive guide with illustrations detailing the planning, managing, and troubleshooting of AppleTalk Networks.

T0471LL/A \$18.95

**QuickDraw GX Font Formats and the TrueType Font Format Specification**

Apple Computer, Inc.  
 R0601LL/A

\$50.00

**Hardware****Designing Cards and Drivers for the Macintosh Family, Third Edition**

Addison-Wesley Publishing Company  
 Apple Computer, Inc., 1992  
 M7075/C

\$29.95

**Designing PCI Cards and Drivers for Power Macintosh Computers**

R0650LL/A \$35.00

**Macintosh Technology in the Common Hardware Reference Platform**

Morgan Kaufman Publishers  
 Apple Computer, Inc.

Explains many of the basic design principles that have contributed to Macintosh performance and ease of use.

T1894Z/A \$39.95

**PCI System Architecture, Third Edition**

Addison-Wesley Publishing Company  
 Mindshare, Inc., Tom Shanley and Don Anderson, 592 pages

Describes revision 2.1 of the Peripheral Component Interconnect (PCI) bus specification. Explores PCI's relationship to the rest of the system. Includes in-depth treatment of PCI to PCI bridges, the PCI BIOS, the 66 MHz PCI bus, and more.

T1716Z/A \$34.95



## POWER and PowerPC: Principles, Architecture, Implementation

Morgan Kaufmann Publishers, Inc.  
Shlomo Weiss and James E. Smith

An in-depth exploration of RISC technology through a significant family of high-performance computers: the POWER and PowerPC architectures and implementations. By comparing the PowerPC 601 and DEC Alpha 21064, a deeper understanding of the PowerPC approach to RISC is provided.

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## PowerPC Architecture, The: A Specification for a New Family of RISC Processors

Morgan Kaufmann Publishers, Inc.  
International Business Machines, Inc.

The official technical description of the PowerPC architecture and its hardware conventions. An essential reference for hardware and system software designers and applications programmers, and a must for anyone who needs to understand the levels of compatibility between different processors in the PowerPC family.

T1776Z/A \$59.95

## PowerPC Macintosh Book, The

Addison-Wesley Publishing Company

Tells you everything you need to know about the new Power Macintosh line, including why the new PowerPC chip family is so important.

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## PowerPC Microprocessor Common Hardware Reference Platform: A System Architecture

Morgan Kaufmann Publishers

Apple Computer, Inc., International Business Machines Corporation, and Motorola, Inc.

Defines the architecture requirements and minimum system requirements for a common hardware reference platform. Provides essential information for anyone developing an operating system, hardware component, or hardware platform to run on these standard systems.

T1893Z/A \$39.95

## PowerPC System Architecture

Addison-Wesley Publishing Company  
Mindsbore, Inc., Tom Shanley; 656 pages

Describes the hardware architecture of PowerPC systems, providing a clear, concise explanation of the PowerPC specification. Covers both 32- and 64-bit implementations.

T1723Z/A \$34.95

## Miscellaneous

### High-Tech Marketing Companion

Addison-Wesley Publishing Company  
Dee Kiamy

Shows how to solve critical marketing problems and maximize resources with advice culled from *Apple Directions*.

T1663LL/A \$22.95

### How to Market with Computer User Groups

User Group Connection  
Sam Decker

By following the guidelines in this book, you will reach hundreds of thousands of user group members, and the untold millions of people with whom they communicate. There is no better way to launch and maintain a word-of-mouth advertising campaign than by marketing with user groups.

T1895Z/A \$29.00

### Inside Taligent Technology

Addison-Wesley Publishing Company  
Sean Cotter with Mike Potel; 512 pages

Describes what Taligent's CommonPoint application system can do, why it's important, and where the people who created it believe it's going.

T1729Z/A \$29.95

## Developer Notes

These publications provide developers with detailed hardware and software information unique to each Macintosh model and to Apple's LaserWriter printers, scanners, and video display products. Developer Notes are distributed whenever new Macintosh models or imaging products are introduced.

### AudioVision 14 Display Developer Note

R0554LL/A \$20.00

### LaserWriter Pro 600 and 630 Printers Developer Note

R0526LL/A \$20.00

### LaserWriter 16/600 PS Printer Developer Note

R0598LL/A \$25.00

### LaserWriter Select 310 Printer Developer Note

R0527LL/A \$20.00

### LaserWriter Select 360 Printer Developer Note

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### Personal LaserWriter 320 Printer Developer Note

R0562LL/A \$20.00

### Macintosh IIsi, LC, and Macintosh Classic Developer Notes

M0991LL/B \$25.00

### Macintosh Classic II, PowerBook Family, and Quadra Family Developer Notes

R0143LL/A \$25.00

### Macintosh Developer Note #1: Macintosh IIfx; PowerBook 145, 160, and 180; Quadra 950; and Macintosh LC II

R0451LL/A \$25.00

### Macintosh Developer Note #2: Macintosh Duo System

R0457LL/A \$30.00

### Macintosh Developer Note #3: Macintosh Color Classic, LC III, PowerBook 165c, Centris 610 and Centris 650, Quadra 800

R0461LL/A \$30.00

### Macintosh Developer Note #4: Macintosh LC 520, PowerBook 145B and Powerbook 180c

R0528LL/A \$25.00

### Macintosh Developer Note #5: Macintosh Quadra 840AV and Centris 660AV

R0529LL/A \$60.00

### Macintosh Developer Note #6: Macintosh PowerBook Duo 250 and 270c; LC 475; and Quadra 605, 610, and 650

R0550LL/A \$35.00

### Macintosh Developer Note #7: Macintosh LC 575

R0565LL/A \$25.00

### Macintosh Developer Note #8: Power Macintosh 6100/60, 6100/60AV, 7100/66, 7100/66AV, 8100/80, and 8100/80AV

R0566LL/A \$30.00

### Macintosh Developer Note #9: PowerBook 520, 520c, 540 and 540c; PowerBook Duo 280 and 280c; and PowerBook Duo Dock II

R0567LL/A \$30.00

### Macintosh Developer Note #10: Macintosh LC 630, Macintosh Quadra 630, and PowerBook 150

R0568LL/A \$30.00

### Developer Notes Available in Electronic Form

Apple References, including Developer Notes, can be obtained electronically in the following ways:

First, by downloading from the Internet at [ftp://ftpdev.info.apple.com/Developer\\_Services/Technical\\_Documentation/Developer\\_Notes/](http://ftpdev.info.apple.com/Developer_Services/Technical_Documentation/Developer_Notes/)

To find this ftp site on the Web, look under the heading Developer Notes at <http://dev.info.apple.com/reference.html>

Second, on Reference Library Editions of the Developer CD Series.

### Macintosh Developer Note #11: Enhanced Power Macintosh Computers, Macintosh 630 DOS Compatible Computer, and DOS Compatibility Card (for Power Macintosh 6100)

R0628LL/A \$25.00

### Macintosh Developer Note #12: Power Macintosh 5200, 6200, and 9500

R0651LL/A \$25.00

### Macintosh Developer Note #13: Power Macintosh 7200 and 7500

R0677LL/A \$25.00

### Macintosh Developer Note #14: Macintosh PowerBook 190 and 5300, Macintosh PowerBook Duo 2300, Macintosh PowerBook Processor Card Update Kit

R0681LL/A \$25.00

### Macintosh Developer Note #15: Power Macintosh 5260 and 5400 Computers, PC Compatibility Cards, and Improved Power Macintosh 7200, 7600, 8500, and 9500 Models

R0697LL/A \$25.00

### LaserWriter 4/600 PS Printer Developer Note

R0649LL/A \$25.00

### Apple Color LaserWriter 12/600 PS Developer Note

R0654LL/A \$25.00

### AppleVision 1710AV Display Developer Note

R0684LL/A \$20.00

### AV Architecture Developer Note

R0682LL/A \$20.00

### Developing PC Card Software for the Mac OS Developer Note

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# Apple Merchandise

Looking For Something Different?

*Apple Computer, Inc.*



## Apple Dogcow T-Shirt

The well-known black-and-white Dogcow icon appears on the back of this 100% cotton Hanes Beefy-T. A black Apple logo and name are on the left chest. Adult sizes M-XXL.

M00115 **\$8.99**

## Mac OS T-Shirt

Operate in style in this white 100% cotton Hanes Beefy-T with a black Apple logo and name screened on the front left chest and the three-color Mac OS logo across the back. Made in U.S.A. Adult sizes M-XXL.

M00149 **\$8.99**



## Mac OS Watch

Colorful and modern, with custom-designed hands in fun shapes. The Apple logo is screened on the dial and the Mac OS name is molded on the black rubber strap.

M00172 **\$42.00**

## Apple Sweatshirt

This black crewneck sweatshirt is made from an 80% cotton/20% polyester heavyweight 9 oz. fleece, and has an attractive all-over ribbed texture and set-in sleeves. The six-color Apple name is embroidered across the chest. Made in U.S.A. Adult sizes M-XXL.

M00155 **\$32.95**



## Baseball Cap

This wool melton cap sports an adjustable leather backstrap, leather button, a black suede visor, and the five-color Apple name embroidered on the crown.

Made in U.S.A.

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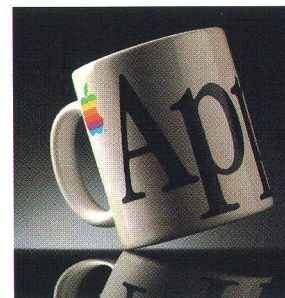
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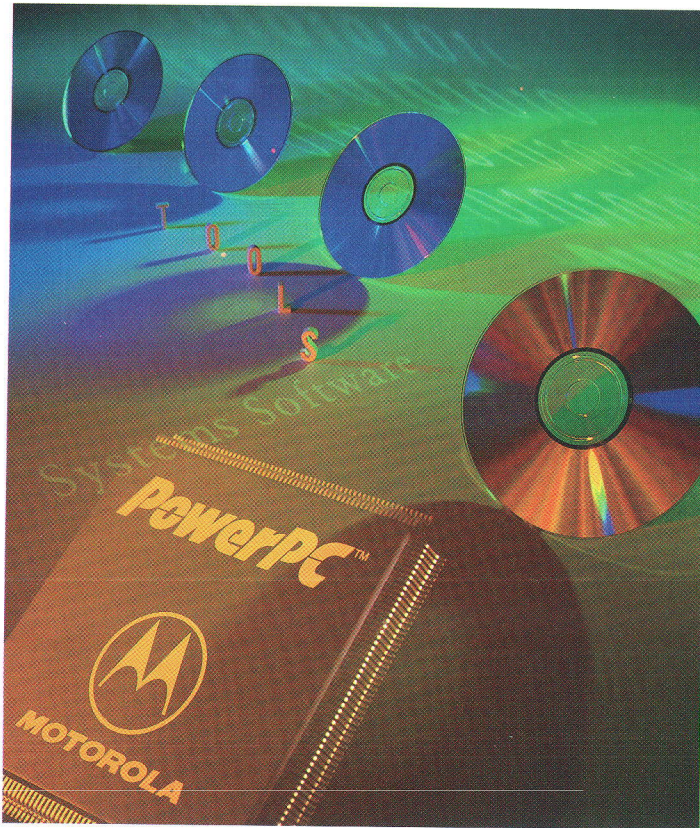
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